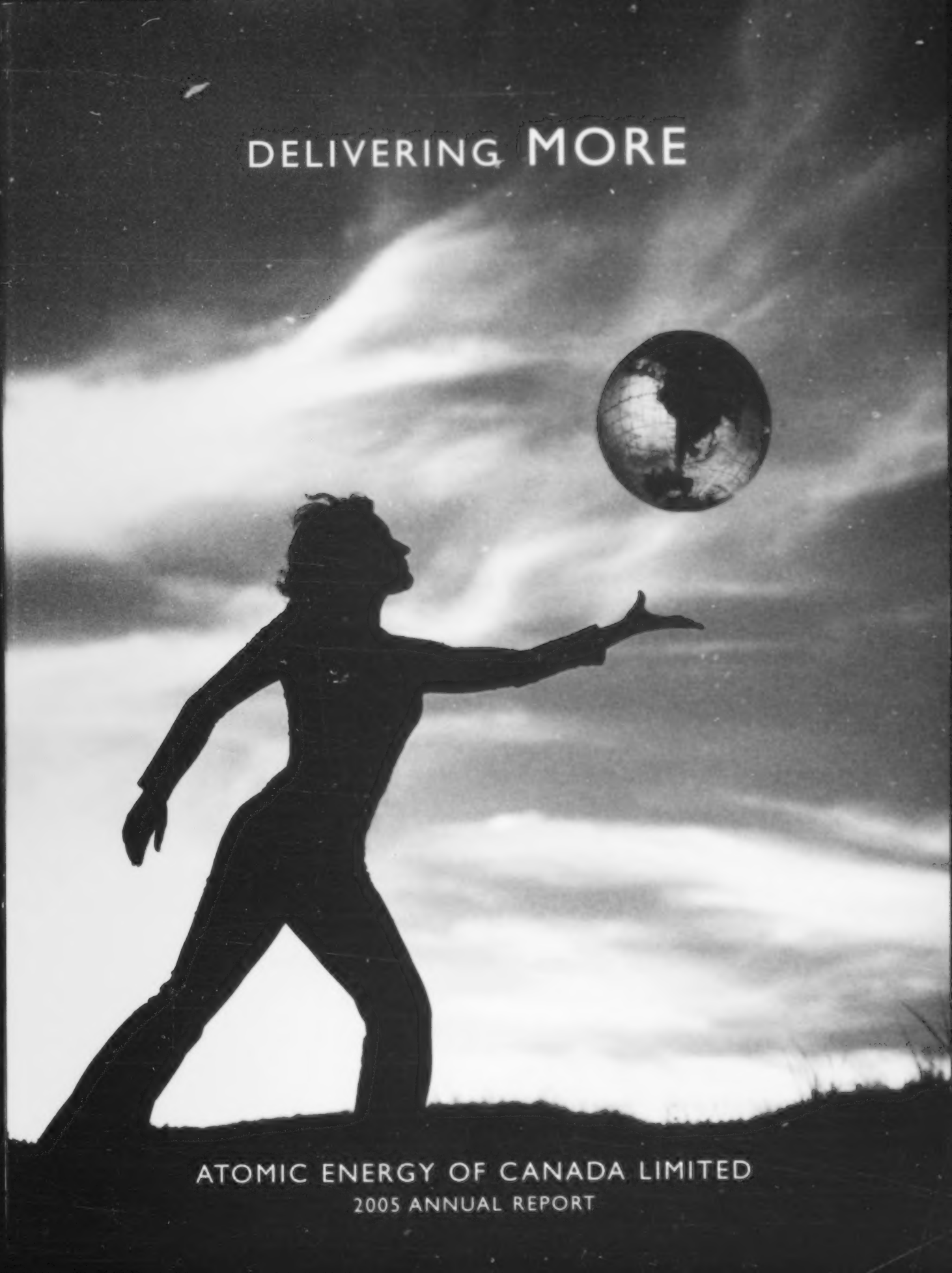
DELIVERING MORE



ATOMIC ENERGY OF CANADA LIMITED

2005 ANNUAL REPORT

CORPORATE PROFILE

ATOMIC ENERGY OF CANADA LIMITED (AECL) IS A FULLY INTEGRATED NUCLEAR TECHNOLOGY AND SERVICES COMPANY PROVIDING SERVICES TO NUCLEAR UTILITIES WORLDWIDE. OUR 3,200 EMPLOYEES ARE DEDICATED TO DELIVERING LEADING EDGE NUCLEAR SERVICES, R&D SUPPORT, DESIGN AND ENGINEERING, CONSTRUCTION MANAGEMENT, SPECIALIZED TECHNOLOGY AND WASTE MANAGEMENT AND DECOMMISSIONING IN SUPPORT OF CANDU® REACTOR PRODUCTS.

AECL IS COMMITTED TO SUPPORTING ITS CANADIAN AND INTERNATIONAL CUSTOMERS IN ALL ASPECTS OF NUCLEAR POWER TECHNOLOGY MANAGEMENT. WE PROVIDE ON-SITE EXPERTISE, CLOSELY SUPPORTED BY OUR NUCLEAR SCIENCE LABORATORIES, TESTING CAPABILITY AND ENGINEERING FACILITIES. CANDU REACTORS SUPPLY ABOUT 16% OF CANADA'S ELECTRICITY AND ARE AN IMPORTANT COMPONENT OF CLEAN-AIR ENERGY PROGRAMS ON FOUR CONTINENTS. AECL IS A CROWN CORPORATION THAT WAS ESTABLISHED IN 1952 TO DEVELOP PEACEFUL APPLICATIONS OF NUCLEAR ENERGY.

Tracy Kemp, Radiation Surveyor, Chalk River

Mandate

AECL will create customer and Shareholder value through:

- Managing the Canadian nuclear platform responsibly and cost effectively
- Leveraging the technology base to deliver nuclear products and services to market
- Paying dividends from the profitable growth

Vision

- To be the top worldwide nuclear products and services company
- To protect the health and safety of the public, our employees and the environment
- To minimize nuclear legacy obligations for future generations

Values

To achieve our vision, AECL people must be:

- Driven by customers' needs
- Obsessed by quality, excellence and safety
- Personally responsible and accountable
- Engaged in open and honest communication
- Empowered to challenge and innovate
- Committed to learning and teamwork
- Motivated by performance

Customer Commitment

Trust. Quality. Innovation. Value. . . AECL's commitment to you.

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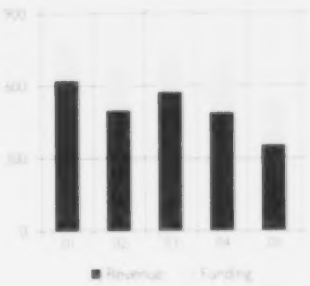
2004–2005 HIGHLIGHTS

DURING THE PAST YEAR, AECL CONTINUED TO IMPROVE ITS OVERALL OPERATIONAL EXCELLENCE AND STRENGTHEN CANDU PARTNERSHIPS WITH CUSTOMERS AND SUPPLIERS AROUND THE WORLD

- REVENUE FROM THE SERVICES BUSINESS GREW BY 26% TO $108 MILLION REFLECTING AN INCREASE IN SALES OF ENGINEERING SERVICES AND COMMERCIAL PRODUCTS TO DOMESTIC AND INTERNATIONAL CUSTOMERS
- AWARDED STEAM GENERATOR CLEANING CONTRACT FROM BRUCE POWER VALUED AT MORE THAN $28 MILLION
- PARTNERED WITH BABCOCK AND WILCOX CANADA TO WIN $12 MILLION CONTRACT FOR THE DESIGN AND SUPPLY OF MAJOR REACTOR COMPONENTS WITH TWO MAJOR CUSTOMERS IN CANADA
- EMPLOYEES TWICE SURPASSED ONE MILLION HOURS WITHOUT A RECORDABLE LOST TIME INJURY
- SIGNED PREFERRED SUPPLIER AGREEMENTS WITH BRUCE POWER AND ONTARIO POWER GENERATION
- PARTICIPATED IN THE SIGNING OF A MEMORANDUM OF UNDERSTANDING BETWEEN CANADA AND CHINA ON DEVELOPING GREATER COOPERATION IN NUCLEAR SAFETY AND TO DEVELOP HYDROGEN TECHNOLOGY
- MORE THAN 3,000 EMPLOYEES COMPLETED CORPORATE-WIDE CUSTOMER SATISFACTION TRAINING PROGRAM

John Rush, Mechanical R & D Engineer (left), and Ken Urbanski, Control Maintainer Whiteshell

Revenue and Funding
(5 Years)
($ millions)



Revenue derived from commercial activities declined as major projects outside of Canada reached completion, while Government of Canada funding for Nuclear R&D has also declined.

AECL AT A GLANCE

AECL IS ORGANIZED AROUND THREE PRIMARY BUSINESS GROUPINGS: REACTOR SALES AND SERVICES RESPONSIBLE FOR AN AGGRESSIVE GROWTH OF THE BUSINESS BY LEVERAGING THE TECHNOLOGY AND APPLYING SOUND QUALITY MANAGEMENT PRINCIPLES TO MEET CUSTOMERS' NEEDS; REACTOR SAFETY AND RESEARCH CHARGED WITH MAINTAINING AND ENHANCING THE KNOWLEDGE AND TECHNOLOGY BASE AND THE NUCLEAR LABORATORIES INFRASTRUCTURE; ENVIRONMENTAL MANAGEMENT (LIABILITY MANAGEMENT UNIT) RESPONSIBLE FOR WASTE MANAGEMENT ACTIVITIES

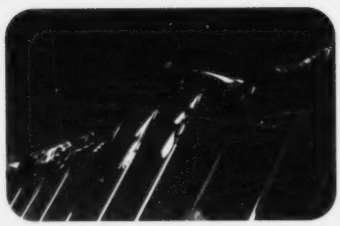
OUR OFFICES AND REACTORS WORLDWIDE

AECL OFFICES

1. Head Office, Mississauga, Canada
2. Whiteshell Laboratories, Canada
3. Montreal, Canada
4. Ottawa, Canada
5. Chalk River Laboratories, Canada
6. Gaithersburg, Maryland, U.S.A.
7. Pickering, Canada
8. Seoul, Korea
9. Beijing, China

CANDU REACTORS

1. Ontario, Canada
2. Quebec, Canada
3. New Brunswick, Canada
4. Argentina
5. Romania
6. Pakistan
7. India
8. Republic of Korea
9. China



AECL AT A GLANCE

Reactor Sales and Services (Commercial Operations)

CANDU® Services 	Dedicated to providing cost-effective and high quality services aimed at improving performance of all operating CANDU plants while increasing AECL's market share, revenues and margins.	• Control and information products • Operational support • Fuelling machine/fuel handling equipment • Heavy water • Non-reactor core equipment • Plant life management • Reactor core • Safety and analysis • Secondments • Smart CANDU remote monitoring
Projects	Focused on supporting AECL's global CANDU customers in optimizing the performance of existing generating assets and the construction of new build plants.	• Inspection and maintenance services • New build projects • Reactor refurbishment and retubing
Technology Commercialization	Responsible for the commercialization of new technology leveraged from AECL's R&D efforts.	• Reactor safety technology • Waste management services

Reactor Safety and Research (Technology)

Nuclear Laboratories 	R&D activities are carried out at AECL's Chalk River Laboratories. Research initiatives and programs focus on ensuring the safe and effective operation of CANDU reactors; developing new products and services to enhance AECL's business opportunities; and to support Canadian government policy.	• Research reactor (NRU) • Shielded facilities (hot cells) • Nuclear materials production • Nuclear labs and experimental facilities • Nuclear safety and analysis • Shops for radioactive materials • Isotope Production
Reactor Development	Leads all activities related to the ACR, including technology and market development. Provide and enhance the safety, licensing, and design technology-basis for CANDU.	• Advanced CANDU Reactor • CANDU 6 • MAPLE Reactor

Environmental Management (Liability Management Unit)

Decommissioning and Waste Management 	Provides support and expert advice to advance AECL's commercial activities and product line; delivers general engineering and project management services to the CRL site. AECL manages low-level radioactive waste at various locations across Canada on behalf of the Federal Government.	• Decommissioning planning and project management • Site preparation, fuel handling and high- and low-level decontamination. • Dry used fuel storage system (MACSTOR®) • Modular Above Ground storage (MAGS)

MESSAGE FROM THE CHAIRMAN

AECL ACCOMPLISHED A GREAT DEAL IN 2004–05, AND ONE OF THE HIGHLIGHTS IS THE INCREASING RECOGNITION BY THE SHAREHOLDER AND OTHERS OF OUR DEDICATION TO GOOD CORPORATE GOVERNANCE

This arises not only from the initiatives and accomplishments of the past year, but from the cumulative impact of AECL's unwavering focus on corporate governance over the past several years.

I am proud to say that both the Board and Senior Management are strongly committed to the continuing development and improvement of our corporate governance practices to ensure the organization continues to operate to the highest standards.

In line with this commitment, the Board's Audit Committee undertook an extensive review of best practices, and as a result updated its charter to significantly strengthen its mandate in a number of key areas of corporate oversight.

Complementing this, AECL management implemented a variety of new measures to ensure that internal processes reflect a higher standard that becomes a way of life in the organization. This included the adoption of a new Code of Ethics and Business Conduct, signed annually by both Board Members and management, and the creation of the position of Chief Regulatory Officer to help accelerate this process of continuing, positive change.

These and other initiatives are aimed at achieving one goal – to develop a corporate culture and business practice that can be held up to the most demanding scrutiny.

Much of this success is due to the hard work and leadership of the committees of the Board – Audit, Human Resources and Governance, Risk Evaluation and Science and Technology. These committees review the company's progress towards plan and performance against objectives in terms of risks to the corporation.

In addition, a new Nominating Committee of the Board was formed to identify and recommend new director appointments and address both CEO and Chair succession plans. This committee includes respected and knowledgeable outside members, supplemented by an executive search firm when required. I am very pleased to note that the committee's recommendations have resulted in several new recent appointments to our Board.

Another key issue addressed by the Board during the year was the liability management related to the long-term waste management and decommissioning of obsolete nuclear facilities. The Board fully supports management's approach and believes that it is prudent to accelerate the timing of the decommissioning program.

On a final note, this will be my last annual report as I will be stepping down as Chair of AECL this coming September.

Looking into the future, there is great reason for optimism. However, I feel strongly that the Corporation and the Shareholder should continue to work together to ensure that AECL has the tools and capacity to compete on an equal basis with its private sector, international competitors. With renewed opportunities for nuclear power within reach, here and around the globe, AECL will not be spared from an aggressive private sector that is seeking to gain market share in Canada and abroad. To compete, AECL must change.

Our opportunities in refurbishment and developing the Advance CANDU Reactor will be jeopardized unless we can compete on a level playing field.

I have had the privilege over the past seven years of working with some truly extraordinary people at the Board and in the Senior Management levels of the company. Their strength as a team lies in their diverse experience, unique perspectives and their shared commitment to operating at the highest ethical standards, and delivering solid value to our shareholders, the people of Canada.

J. RAYMOND FRENETTE
Chairman of the Board

OUR COMMITMENT TO CORPORATE GOVERNANCE

AECL'S CORPORATE GOVERNANCE IS BASED ON GUIDELINES RECOMMENDED BY THE TREASURY BOARD OF CANADA

BOARD HIGHLIGHTS

- AECL actively participated in the Shareholder's review of Crown Corporation Governance. Many of AECL's views were reflected in the Review of the Governance Framework for Canada's Crown Corporations issued by the Federal Government in February 2005.
- AECL's Audit Committee amended its Charter consistent with the Shareholder's recommendation, those of the Auditor General and a review of best practices.
- AECL established a Nominating Committee of its Board, which includes outside eminent persons.

Accordingly, AECLs Board of Directors focuses on setting the strategic direction for the organization, ensuring that appropriate mechanisms for financial oversight are in place and on establishing systems for performance management, risk management, succession planning and stakeholder communications.

In response to the government's stated intention over the past year to conduct a review of Crown Corporation Governance, AECL's Board, led by its Human Resources and Corporate Governance Committee, ensured that the company's governance regime and practices were consistent with government expectations in terms of the public interest in good governance and transparency.

AECL actively participated in the review, providing written representations to the Treasury Board Secretariat and holding meetings with senior government officials. Many of AECL's views on issues such as board and management accountability, transparency, reporting mechanisms, and executive compensation were consistent with the government's report, "Review of the Governance Framework for Canada's Crown Corporations," issued in February, 2005.

Also in the past year, the Corporation's Audit Committee, following recommendations from the Auditor General's office, undertook a review of best practices and amended its Charter to ensure, among other things, that expected standards of corporate and individual behaviour are included in its mandate. The committee's charter now also specifies a detailed annual schedule of work for reviewing management's assessments of key risks, management's control practices, financial statements and significant legal matters, contingencies, claims or assessments that could have a significant impact on the Corporation.

In accordance with new procedures announced by the Treasury Board in April, 2004, the Board also established a Nominating Committee, including outside eminent persons, to recommend to government new director appointments and to address succession planning for both the Chair and CEO.

The past year also saw the adoption of a new Code of Ethics and Business Conduct Policy in the organization. The Code outlines the standards of behaviour according to three specific areas: business conduct, fiscal integrity and responsibility, and conflict of interest.

All new employees are required to read and sign the policy, and all Directors, Executives and Managers are required to review the policy annually and acknowledge that they understand the requirements under the code.

PRESIDENT'S MESSAGE

SIGNS OF AN EXPANDING AND ROBUST BUSINESS ENVIRONMENT FOR AECL AND THE NUCLEAR INDUSTRY CONTINUE TO GROW STRONGER. THE MEDIA IS FULL OF STORIES OF DEMAND FOR URANIUM, NEW FLEETS OF REACTORS IN CHINA, NEW REACTOR CONSTRUCTION IN EUROPE AND INDIA, AS WELL AS AGGRESSIVE PLANNING IN THE US FOR NEW NUCLEAR PLANTS TO REDUCE DEPENDENCE ON EXPENSIVE OIL AND GAS

A Bridge to the Future

Energy experts are debating the need for more nuclear energy, including prominent environmentalists and climate change experts. Nuclear power is rightly seen by more and more decision-makers for what it is – a key enabler of sustainable economic growth. Nuclear's strategic benefit is reliable generation of large amounts of safe, clean, competitive electricity. As Canada and the world enter the next expansion of nuclear power, the commercial potential for AECL and Canada's proven CANDU industry is enormous, both in life extending CANDUs on four continents and launching the next-generation Advanced CANDU Reactor.

2004–05 was a very good year for AECL. We ended the year with an operating profit of $76 million from our commercial operations, exceeding financial targets. A major contributor to these strong results was the successful completion of our twin-unit CANDU reactor project at the Qinshan site in China, ahead of schedule and on budget. Similar excellent performance has taken place on Unit 2 at the Cernavoda site in Romania, where we continue to meet demanding targets for project execution with our Italian partners.

AECL's concentrated efforts to improve the performance of the CANDU fleet and focus on customer satisfaction resulted in significant growth in our services business, which recorded an impressive revenue increase of 26 percent. I am proud to note that AECL was recognized this year as a preferred services supplier to two of the largest CANDU operators, Ontario Power Generation and Bruce Power.

Medical isotope production surpassed planned targets, delivering about 50% of global market demand in the fight against cancer and other serious diseases. Work continues at an accelerated pace on the commissioning of new production facilities to ensure the long-term supply of this vital nuclear medicine product to protect human health.

The coming year holds even greater promise for AECL, and offers exciting challenges to our talented team of employees. Technology developed by AECL will allow CANDU reactors to be refurbished efficiently, extending economic service life for another 25 to 30 years. AECL has finalized contract terms for retubing two large Bruce Power reactors in Ontario, and is working to finalize plans for refurbishing the Point Lepreau reactor in New Brunswick. Both projects are expected to be approved this year.

Negotiations have also started with our CANDU 6 utility customers in Korea and Argentina.

The economics for refurbishment are compelling, since the net result is a power plant at half the price. So too are the environmental benefits of not burning fossil fuels – over 125 million tonnes of harmful air pollution will be avoided by each refurbished CANDU reactor, including carbon dioxide, acid gases and particulate matter. Refurbishment and life extension represent an exciting growth area for AECL, and demonstrates again the strength and flexibility of CANDU design. For AECL, refurbishment projects effectively represent a bridge to the introduction of the Advanced CANDU Reactor (ACR).

With the strong support of the Government of Canada, we have adjusted to market demand and made substantial progress in developing the ACR-1000™ – a 1200-MW reactor that will meet the needs of the broadest base of utility customers. AECL's immediate focus is Ontario, where CANDUs generate half the province's power and where substantial new nuclear generation capacity will be required.

The ACR is well positioned to compete worldwide, and I am pleased with the progress that we have made in the US. The ACR has been well received as a highly credible technology by the

2005 OBJECTIVES

- Initiate CANDU reactor refurbishment contracts
- Achieve sales of $485 million
- Improve customer satisfaction and quality performance through enhanced products and services
- Initiate environmental assessment process for new build in Ontario
- Enhance capability for nuclear safety research
- Advance design of ACR-1000
- Bring Dedicated Isotope Facilities into operation
- Improve overall corporate health and safety performance
- Launch the Comprehensive Decommissioning Plan for AECL sites

AECL PROJECT EXPERIENCE

In Service Date	Plant	Cost Variance	Schedule Variance
1996	Cernavoda Unit 1, Romania	On Budget	On Schedule
1997	Wolsong Unit 2, S. Korea	On Budget	On Schedule
1998	Wolsong Unit 3, S. Korea	On Budget	On Schedule
1999	Wolsong Unit 4, S. Korea	On Budget	On Schedule
2002	Qinshan Phase III, Unit 1, China	On Budget	6 weeks ahead of schedule
2003	Qinshan Phase III, Unit 2, China	On Budget	4 months ahead of schedule

US regulator and the US Department of Energy. AECL is also responding to renewed interest in the United Kingdom, while the market for reactors in China is strong and growing rapidly.

Solid improvements in AECL's quality and environmental programs were achieved this year with our main R&D site at Chalk River being awarded ISO 14001 environmental credentials. A Chief Regulatory Officer was appointed to drive a concerted effort to anticipate and exceed regulatory requirements. Over the past five years, the Government of Canada and AECL have invested more than $150 million on decommissioning and waste management initiatives. Performance in the decommissioning program at the Whiteshell Laboratory has been well received by the Canadian Nuclear Safety Commission.

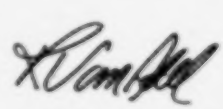
I am pleased to report that AECL, in concert with Natural Resources Canada, has addressed an important legacy waste issue and developed a more aggressive decommissioning plan. The plan, which incorporates international standards, accelerates the timing of the decommissioning program, and, together with changes in accounting regulations, means that AECL and the Government have recognized a one-time increase in the legacy liability to $2,750 million in discounted dollars.

AECL's 70-year decommissioning plan is good news for Canadians, since it adopts best practices of prompt decommissioning, and reflects strong commitment to protecting the environment.

The federal government is also continuing to support AECL in international markets, most recently with the signing of the Canada China Energy Statement for greater nuclear energy cooperation. Canada has also become a signatory to the Generation IV Framework Agreement, a partnership with nine industrial countries and the European Union to conduct advanced nuclear power research and development.

In order to continue our success, AECL is committed to engaging a new generation of Canadians to share the promise and potential of CANDU technology for the future. We are also investing in the welfare of our employees, by building a pro-active safety culture that places health and safety as our highest priority.

AECL today is very different organization – more accountable, flexible and responsive to its customers and the Regulator, as well as to its Shareholder, the Government of Canada. On behalf of the Board of Directors and Senior Management team, I would like to thank our employees for their continued dedication and their commitment to the success of the Corporation and our world-beating CANDU technology.



ROBERT G. VAN ADEL
President and Chief Executive Officer

REACTOR SALES AND SERVICES (COMMERCIAL OPERATIONS)
PERFORMANCE vs OBJECTIVES

2004/05 Objectives	2004/05 Results	2005/06 Objectives
Achieve revenue of $380 million.	• Total revenue of $378 million is lower than plan by $2 million primarily due to the deferral of reactor refurbishment sales to 2005/06. • Services revenue increased by 26%.	• Achieve revenue of $485 million.
Sustain net loss of $15 million after investment in ACR.	• Net loss for the year was $1,841 million ($34 million excluding the Liability Management Unit). The liability for nuclear site rehabilitation over the next 70–100 years was updated to advance the decommissioning timeline.	• Achieve net income of $11 million (excluding the Liability Management Unit).
Sell products and services to maximize station performance.	• Product line expansion included steam generator cleaning, hydrogen recombiners, decontamination services, and emergency core cooling strainers. • Completed contract specifications for the retubing of three domestic reactors.	• Grow services revenue by 9%.
Conclude major partnerships/joint ventures with the private sector.	• Major agreements in place with private sector partners to deliver on services and large projects consortia.	• Attract and retain key resources through succession planning, out-sourcing, partnerships and acquisitions.
Achieve improvement in customer satisfaction.	• Achieved an 11% increase in customer satisfaction, versus a planned target of 10%.	• Achieve 10% improvement in Customer Satisfaction Index.
Implement improvements in key processes.	• Initiatives launched in continuous business improvements, communications, and quality process reviews. • Achieved expense to revenue target of 65%.	
Implement quality improvement initiatives.	• The Quality Index improved by 11%. • Obtained Level 1 certification in the National Quality Institute Progressive Excellence Program.	• Improve Quality Index by 10%.

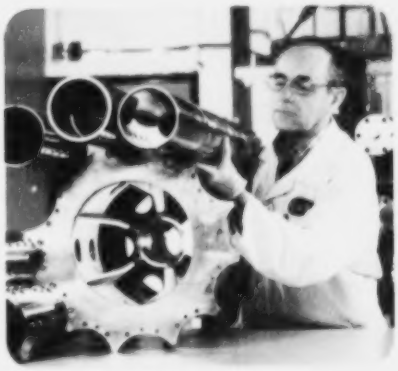
REACTOR SALES AND SERVICES

AECL'S REACTOR SALES AND SERVICES ARE FOCUSED ON THREE COMPLEMENTARY AREAS: NEW REACTOR PROJECTS, REACTOR REFURBISHMENT, AND NUCLEAR PRODUCTS AND SERVICES

A Year of Transition

In recent years, AECL has been one of the world's most successful reactor suppliers, undertaking multi-unit CANDU projects in China and Romania. With the completion of the Qinshan project in China, and with the Cernavoda Unit 2 project in Romania almost three-quarters complete, AECL's commercial focus in the short term has shifted from new reactor projects to refurbishments and nuclear products and services.

The slowdown in new reactor projects had a significant impact on revenues and profits in 2004–05. Consolidated revenue from Reactor Sales and Services decreased to $305 million in 2004–2005, compared to $431 million in 2003–2004, primarily due to the sale in the previous year of heavy water for the Qinshan project. The impact on operating profit, however, was cushioned by good project execution on the Cernavoda project in Romania, increased performance in the nuclear services business and realization of gains on the successful completion of projects. As a result, the 2004–05 operating profit of $76 million was unchanged from the previous year, despite a major reduction in revenue.



Randy Hayes, Mechanical Technologist, Sheridan Park

While the slowdown in new reactor projects did affect the bottom line, it also provided an opportunity for AECL to devote the resources necessary to continue the transition to its next generation reactor, the 1200 MW class Advanced CANDU Reactor-1000 (ACR-1000™). The emerging renewal in the nuclear energy market, coupled with the development of the ACR-1000, points to significant growth opportunities down the road.

In the meantime, refurbishing existing CANDU reactors is an important business that will grow significantly as the CANDU reactors around the world continue to mature. Refurbishing reactors is a cost-effective and timely way to extend their service lives by 25 to 30 years.

Contract negotiations are progressing with a number of CANDU operators, and it is expected that the refurbishment work both in Canada and abroad will move ahead in the coming months, leading to a steady increase in revenue over the next several years.

AECL's nuclear services business is also continuing to grow, mostly in support of the CANDU reactors currently in service around the world. AECL's CANDU expertise, coupled with its extensive research and development capabilities, provide the organization with a key competitive edge in a highly competitive marketplace.

New Reactor Projects

Globally, the demand for nuclear energy is once again on the rise. China has announced an ambitious plan to build up to 30 reactors over the next 15 years. In Europe, new reactors have already been ordered in both France and Finland, with strong potential for the addition of new units in the United Kingdom. On the domestic front, the growing need for new generating capacity in Ontario

MYTH > Nuclear is not economical **FACT** > CANDU = thriving Ontario Economy > New CANDU reactors have up to 85% Canadian content > Four new Advanced CANDU Reactors result in $6 billion in Ontario economic benefits > Export of two CANDU reactors would result in up to 25,000 person-years of employment in Canada – mainly in Ontario > Success in the Ontario Market is key to future CANDU export sales

should pave the way for the introduction of new nuclear generation stations by the middle of the next decade.

AECL is well positioned to benefit from the strengthening reactor market, building on its recent CANDU 6 project successes in China and Romania and the strong operating performance of other CANDU units around the world. AECL's CANDU technology has been operating reliably on four continents for more than 30 years. Overall, CANDU's contribution to the world's power supply has been substantial, supporting the safe and reliable generation of $100 billion worth of electricity.

For customers with pressing needs for additional energy, the proven and reliable CANDU 6, a 700 MW class reactor, is available now and can be built and brought into service in as little as 5½ years after project start. There are currently 10 CANDU 6 units in operation and one under construction.

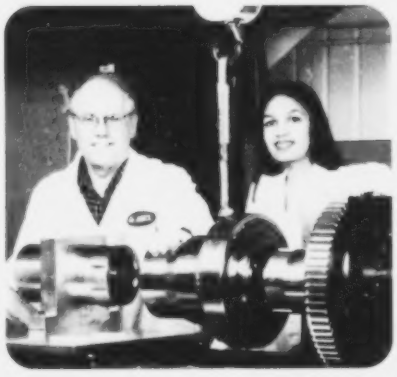
Looking a little further down the road, the ACR-1000 is expected to provide a significant competitive advantage over other reactor designs, helping to improve CANDU market share and enhance opportunities for longer-term corporate growth.

The ACR-1000 combines CANDU's proven features, such as on-power refuelling, simple fuel design, and flexible fuel cycle options, with innovations that – along with AECL's significant experience in delivering projects on time and on budget – will dramatically reduce the capital cost to build an ACR plant. The result is a safe and proven power system that is highly competitive with other types of nuclear power systems and all other electrical generation systems, including oil, coal, and natural gas.

Growth Opportunities

AECL is currently exploring opportunities for new reactor projects in Europe, China, the USA, and Canada.

In Europe, a decision is expected soon on Cernavoda Unit 3 in Romania as Cernavoda Unit 2 project is now more than 70% complete, and the infrastructure is in place for additional units. In 2004, AECL responded to an international request for investment and participation in the completion of Unit 3. AECL and its partners are working closely with the Romanian operator and potential investors to make this project a reality.



Geoff Watson, Development Technician (left), and Kumar Bhargava, Mechanical Engineer, Shielded Fuel

In China, AECL's success in delivering the Qinshan Units 1 & 2, both delivered on budget and ahead of schedule, provides a strong foundation for future business in the world's largest nuclear market. AECL continued to work with key Chinese organizations to strengthen its position in the country, while promoting a repeat pair of CANDU 6 units in the short term and ACR-1000 units in the future.

In the UK, AECL is carefully following the newly-resurgent market for new nuclear plants. A government "white paper" on energy options is anticipated in late 2005, which is expected to identify the importance of the nuclear option. AECL is strongly promoting the ACR-1000 as a proven and competitive energy option for the United Kingdom and is developing alliances with potential partners for this promising CANDU market.

When Dominion Energy announced its withdrawal of the ACR-700 in January 2005, from the US DOE Combined Construction and Operating License Program, AECL maintained its presence in the US market and expanded its work with US industry organizations, such as the Nuclear Energy Institute and with target utilities by offering specialized products and services. AECL maintained its pre-application licensing program by resolving long-lead issues identified in the US Nuclear Regulatory Commission's (NRC) Pre-Application Safety

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For customers with pressing needs for additional energy, the proven and reliable CANDU 6, a 700 MW class reactor, is available now and can be built and brought into service in as little as 5½ years after project start. There are currently 10 CANDU 6 units in operation and one under construction.

Looking a little further down the road, the ACR-1000 is expected to provide a significant competitive advantage over other reactor designs, helping to improve CANDU market share and enhance opportunities for longer-term corporate growth.

The ACR-1000 combines CANDU's proven features, such as on-power refuelling, simple fuel design, and flexible fuel cycle options, with innovations that – along with AECL's significant experience in delivering projects on time and on budget – will dramatically reduce the capital cost to build an ACR plant. The result is a safe and proven power system that is highly competitive with other types of nuclear power systems and all other electrical generation systems, including oil, coal, and natural gas.

Growth Opportunities

AECL is currently exploring opportunities for new reactor projects in Europe, China, the USA, and Canada.

In Europe, a decision is expected soon on Cernavoda Unit 3 in Romania as Cernavoda Unit 2 project is now more than 70% complete, and the infrastructure is in place for additional units. In 2004, AECL responded to an international request for investment and participation in the completion of Unit 3. AECL and its partners are working closely with the Romanian operator and potential investors to make this project a reality.

Geoff Brussee, Development Technician (left), and Ayanthi Andrade, Mechanical Engineer, Sheridan Park

In China, AECL's success in delivering the Qinshan Units 1 & 2, both delivered on budget and ahead of schedule, provides a strong foundation for future business in the world's largest nuclear market. AECL continued to work with key Chinese organizations to strengthen its position in the country, while promoting a repeat pair of CANDU 6 units in the short term and ACR-1000 units in the future.

In the UK, AECL is carefully following the newly-resurgent market for new nuclear plants. A government "white paper" on energy options is anticipated in late 2005, which is expected to identify the importance of the nuclear option. AECL is strongly promoting the ACR-1000 as a proven and competitive energy option for the United Kingdom and is developing alliances with potential partners for this promising CANDU market.

When Dominion Energy announced its withdrawal of the ACR-700 in January 2005, from the US DOE Combined Construction and Operating License Program, AECL maintained its presence in the US market and expanded its work with US industry organizations, such as the Nuclear Energy Institute and with target utilities by offering specialized products and services. AECL maintained its pre-application licensing program by resolving long-lead issues identified in the US Nuclear Regulatory Commission's (NRC) Pre-Application Safety

Angelo Farago, Robotics Mechanical Technician, Sheridan Park

Richard Suter (left) and Shawn Keith, URE Mine Rescue, Wheatley

LIFE EXTENSION

Quynh Pham and Mark Carney, Robotics, Sheridan Park

CANDU technology is unique in that it was designed from the outset to have its core structures replaced. Effective reactor refurbishment is the fastest, most economical and efficient way to sustain or increase a utility's electricity supply. Refurbishment of a CANDU delivers a new power plant for about half the price of a new reactor and enables it to operate for another 30 years.

Moreover, refurbishing nuclear reactors can be done within a relatively short outage of about 18 months, providing much needed energy on a timely basis.

Assessment Report. The near term licensing focus was on generic ACR technology and code-related items and a planned longer-term shift to ACR-1000 specific licensing issues. This approach will help to establish international credibility for the ACR-1000 in other export markets such as China and the UK, through US NRC Safety Evaluation Reports on generic ACR issues.

The refurbishment of existing Ontario Power Generation (OPG) and Bruce Power CANDU reactors remains the highest priority in Ontario, but there is no ignoring the emerging supply gap, and the corresponding need for even more generating capacity in the province.

To help meet this challenge, AECL is working to have the ACR-1000 ready to enter service when Ontario needs the power. ACR-1000 has clear advantages for the province. These include an existing CANDU infrastructure, (domestic R&D capability, regulatory regime, supply chain, and waste management), a licensing head start, significant economic benefits for the province not only for CANDU reactors to be built in the province, but for export sales as well, and a very competitive "all-in" price.

Reactor Refurbishment

In Canada there are a total of 22 CANDU nuclear power reactors – 20 in Ontario, one in New Brunswick and one in Quebec. Of these, 17 are currently in operation, and another is expected to be providing power to the Ontario grid later this year. It is anticipated that all of Canada's nuclear reactors will have to undergo life extension and refurbishment programs if they are to continue operating well into the next decade.

AECL is continuing to work closely with Bruce Power in Ontario in anticipation of a decision to proceed with refurbishment of the Bruce A 1 and 2 units. Similar decisions on refurbishment of CANDU 6 units at Point Lepreau in New Brunswick and Gentilly 2 in Quebec are imminent.

AECL has also begun work with the Korea Hydro & Nuclear Power Co. Ltd. (KHNP) on plans for refurbishing its Wolsong 1 unit. The Wolsong 1 unit first entered service in 1983 and it is one of four CANDU units owned by KHNP. AECL has also begun discussions with the Argentinean utility Nucleoeléctrica Argentina Sociedad Anónima on accelerating its plans for refurbishing its CANDU 6 reactor in Embalse.

These refurbishment projects could result in significant commercial business over the next several years, providing revenue growth during the transition to the new ACR-1000 design.

Nuclear Products and Services

The nuclear services business grew by an impressive 26% in 2004–05 to $108 million, reflecting an increase in the sale of engineering services and commercial technology-based products to both domestic and international customers.

Despite the growth in the volume of service work, management overhead was reduced during the year by 12%, thanks to process improvements and the development of efficient new tools. This approach has led to increased gross margins and a notable increase in quality, demonstrated by higher grades on customer feedback scorecards and several quality audits.

The vast majority of AECL's nuclear services business is focused on the globally successful CANDU reactor technology. AECL has a distinct advantage in this market as it is the world's only nuclear services supplier with an intimate knowledge of all aspects of the CANDU design. AECL staff designed many of the systems that make CANDU the unique, on-power fuelled, and digital computer controlled nuclear power plant that has provided clean, economic, and safe electricity for over 30 years.

This expertise is backed by a solid background in Research and Development capabilities. This gives the organization an unparalleled advantage in providing a full line of engineering and technical products and services that support operating CANDU plants and improve customer productivity and competitiveness.

Partnering for Success

While the nuclear services business provides a healthy contribution to AECL's bottom line, its importance extends beyond the revenues generated. A robust services business complements the success in other key areas as it increases the viability of refurbishments and new reactor sales, and provides customer-focused input into technology development.

In 2004–05, AECL strengthened its services by leveraging strategic partnerships and risk sharing with other major nuclear suppliers, including a teaming agreement with Babcock & Wilcox Canada, on the OPG/Bruce Power Feeder Replacement Tool Development Program.

AECL also became a preferred services supplier to the two largest CANDU operators, OPG and Bruce Power. AECL's partnerships with CANDU utilities and other key Canadian and international nuclear suppliers complement its strengths and enable the company to broaden the range and scope of services offerings in support of safe, reliable and economic operation of CANDU plants worldwide.

Leveraging its unique expertise and knowledge through these partnering and subcontracting relationships also allows AECL to participate in the supply of products and services that are traditionally beyond its reach due to resourcing constraints.

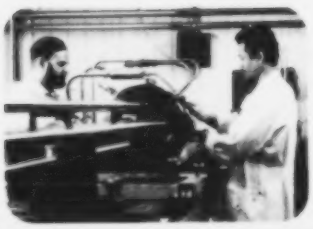
Targeting International Markets

The Technology Commercialization Business Unit is helping develop international markets for AECL technologies and services, with particular focus on markets beyond the CANDU reactor community.

As part of this effort, a general alliance has been negotiated with Hitachi Limited to develop joint Hitachi–AECL product offerings for world markets, and to co-develop the Japanese nuclear power and research markets for AECL products and services. Japan has the world's third largest installed nuclear fleet after the US and France.

Other market alliances include the recent partnership with Comex Nucléaire in France to offer specific AECL and joint nuclear safety and operational improvement products to European nuclear markets. This alliance paid dividends in 2004–05, as AECL and Comex, along with Mitsubishi Heavy Industries, were selected by Electricité de France to supply emergency core cooling system safety components for 10 of 17 plants currently planned for retrofit.

Alan Murchison, Services Project Manager, Ontario, Sheridan Park



Tafoor Ali, Mechanical Technician *(left)*, and Pheak Sing, Mechanical Technologist, Sheridan Park

MYTH > CANDU reactors have a poor performance record **FACT** > An Ontario CANDU reactor holds the world record for continuous operation – 894 days > The worldwide CANDU fleet has an excellent track record, with an 88% average capacity factor since 2000

Efforts are also underway to continue AECL's successful growth in the US market, introducing new products and services into US nuclear utilities and to the Department of Energy (DOE). AECL maintains a long history of supplying operational performance improvement products to a number of US nuclear power stations and continues to provide consulting services on nuclear spent fuel storage strategies to the US DOE.

More Growth Ahead

Going forward, the challenge for AECL's nuclear services business will be to balance the continued expansion of the services business with substantial growth in the major projects and reactor development groups.

To meet this challenge, steps are being taken to further improve management efficiency and to increase available resources, both by a substantial hiring program and by leveraging our unique CANDU expertise and knowledge base in partnering and subcontracting relationships. For example, AECL is currently working with KHNP to jointly develop a more advanced, economical and space efficient version of the successful MACSTOR® Spent Fuel Dry Storage Module for deployment in South Korea and other markets.

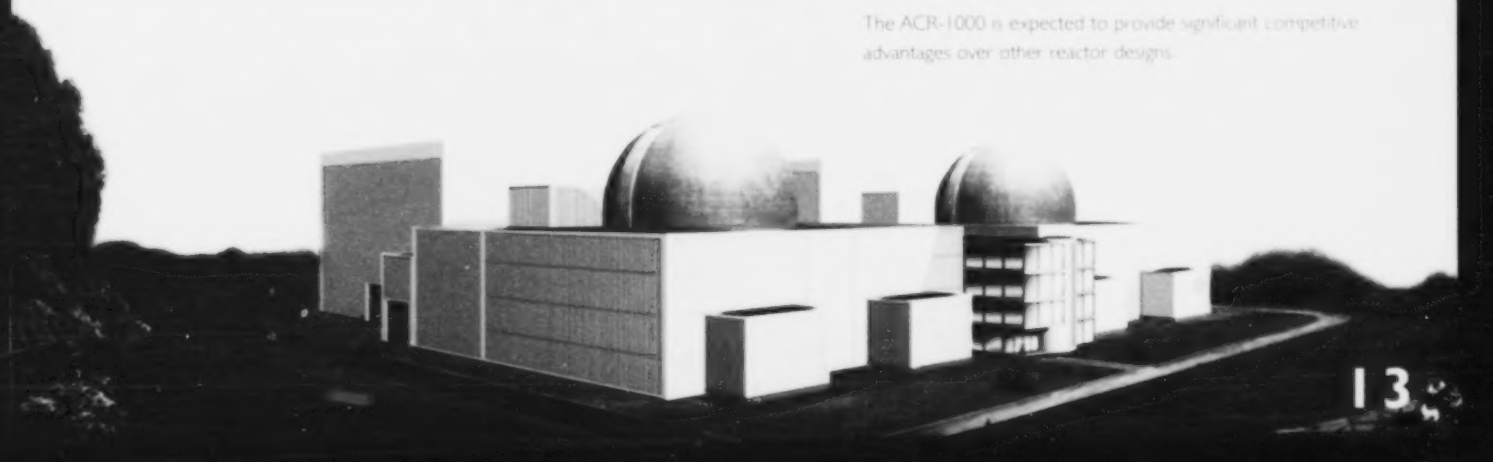
Marketing efforts are also being enhanced and new, efficient management tools are being developed, such as the Proposals Data Base and Project Reporting System, to strengthen project management, reporting and communications.

Investment in Excellence Pays Dividends

AECL's focus on quality earned top marks in several industry-led quality audits taken during the year:

- The CANDU Procurement Audit Committee (CANPAC) found AECL to have:
  - "compliant and strong QA program"
  - "demonstrated continuous improvement"
  - "impressive procurement system, especially with the use of checklists"
  - "clear, concise and comprehensive qualification testing program."
- A surveillance audit conducted by the Quality Management Institute in October and November at various sites resulted in AECL maintaining its Global Certification to the ISO 9001:2000 Standard – a requirement to do business with many of AECL's nuclear services customers.
- A successful US DOE audit conducted in early November 2004 enabled AECL to maintain its status on the "Qualified Suppliers List for design engineering review and analysis".
- Tokyo Electric Power Company conducted its own audit and confirmed that AECL's Quality Management System complies with the ISO 9001:2000 Standard. TEPCO is interested in AECL safety related and performance enhancing products.

The ACR-1000 is expected to provide significant competitive advantages over other reactor designs.



REACTOR SAFETY AND RESEARCH (TECHNOLOGY)

PERFORMANCE vs OBJECTIVES

2004/05 Objectives	2004/05 Results	2005/06 Objectives
Advance CANDU operating safety by achieving key safety, research and development milestones.	• Research Effectiveness Index result of 79 surpassed the target of 75. This measures the results of the research program against international standards for R&D and acceptance by the nuclear community. • First-ever high temperature experiment of molten fuel ejected under pressure into water successfully completed, demonstrating CANDU safety.	• Achieve a 10% improvement in the Research Effectiveness Index.
Achieve NRU reactor licence extension milestones.	• Inspection milestones achieved. • Safety and licensing assessments and report prepared for licensing submission.	• Achieve a 78% availability performance for NRU reactor. • Secure Chalk River Laboratories site licence. • Achieve Dedicated Isotope facilities licensing milestones.
Confirm linkages with the hydrogen economy and oil sands development with industry and government.	• Canada and China entered into a cooperative agreement on nuclear energy research including the investigation of hydrogen production through nuclear means. • Economic studies confirm nuclear applications competitive.	• Demonstrate AECL leadership in nuclear power/hydrogen synergy.
Implement results of the internal study on platform research, facilities, decommissioning and security.	• Achieved improvement in the cost of research and development programs of $2.7 million from the previous year. • Resourcing and mentoring program launched for key skills positions.	• Achieve an 8% improvement in platform expenditure to revenue and funding ratio.
Achieve key ACR program milestones.	• Successfully completed the familiarization and issue identification requirements with the US Nuclear Regulatory Commission. • A joint feasibility study for an ACR new build program was completed with a domestic utility.	• Achieve key ACR program milestones.

REACTOR SAFETY AND RESEARCH

FIFTY YEARS OF RESEARCH AND DEVELOPMENT HAS POSITIONED AECL AT THE LEADING EDGE OF NUCLEAR ENERGY TECHNOLOGY

Tracy Kemp, Radiation Surveyor (left), and Geoff Quast, Decontamination Operator, Chalk River

World Leading CANDU Research & Development

AECL's Technology program supports all aspects of the CANDU reactor – from reactor design and engineering, to project management and construction of CANDU nuclear power plants, to the provision of a wide range of nuclear-related services, including the management of nuclear wastes. Much of the company's R&D is focused on enhancing CANDU reactor safety and performance, and centred on eight key technologies: safety; fuel and fuel cycles; fuel channels; components and systems; heavy water production and processing; environment, emissions and waste management; control and information; and constructability.

With world-class expertise in all key nuclear technology disciplines, AECL's scientists and engineers are committed to understanding and meeting the current and future needs of customers around the globe.

AECL's utility customers have access to some of North America's most sophisticated, independently operated, remote-handling services and facilities to diagnose in-service problems and develop timely and practical solutions. AECL's research reactors provide a test bed for many experimental programs in support of CANDU utilities.

Funding for AECL's R&D program is provided by the Canadian government, as well as from AECL investments in new technology, and to a lesser extent from cost-sharing agreements with Canadian provincial utilities and other CANDU operators. Additional revenue is earned from the production of medical isotopes and commercial R&D work that focuses mainly on CANDU utility requirements.

Nuclear Laboratories

AECL's nuclear research and development program maintains and enhances the CANDU safety, licensing and design basis. In addition, it supports public policy for nuclear technology, develops pre-commercial CANDU technology and preserves the capability and expertise needed to address future nuclear-related applications.

AECL's research and expertise also supports improvements in plant performance and licensing for CANDU utilities. AECL continues to advance its research vision of providing components, systems and technology that will ensure CANDU's long-term safety and performance competitiveness in global markets.

In 2004–05, progress was made in a number of key areas, including the following:

Power Plant Management

AECL researchers are developing a suite of new power plant life-management products called System Health Monitors (SHMs). These will help CANDU utilities to reduce their operating and maintenance costs and increase capacity factor through improved surveillance monitoring, targeted maintenance, and avoid unplanned shutdowns caused by equipment failure.

MYTH > Nuclear technology is flawed **FACT** > AECL and partners deliver nuclear projects with minimum risk to owner and with proven operating performance and low cost > AECL is the only major vendor to deliver six power reactor projects in last eight years on budget/on time or earlier > Four CANDU reactors in Korea had an average operating capacity factor over the last three years of 92.5%

The SHMs will enable operators to compare today's performance with past conditions, allowing staff to target when and where to inspect and assisting in the planning of remedial maintenance activities before equipment degrades or fails.

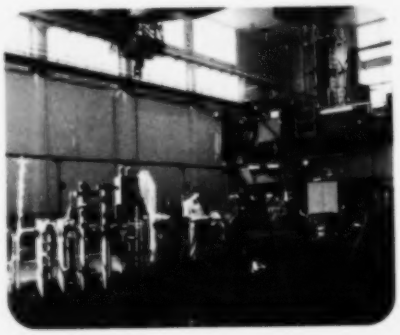
The SHMs are an integral part of AECL's strategy to develop a SMART CANDU™ with improved tools for monitoring, diagnostics, prediction, analysis and control of key processes in the plant, and include:

- *ChemAND*™, a system for monitoring plant chemistry, that has been thoroughly tested at Gentilly 2 in Quebec and is now commercially available.
- *ThermAND*™ is being developed to monitor key circuits in the plant that have a heat-transport function, e.g., the primary and secondary heat transport systems, the moderator, and end-shield cooling systems. Not only will it monitor process parameters, such as temperature, pressure, and flow rate in each circuit, but will also provide monitoring and diagnostics for degradation of key components within each circuit, such as pumps, heat-exchangers, vessels and interconnecting piping.
- *FCMAT* is the most recent addition to the SMART CANDU suite of products. It is a software-based tool that combines manufacturing information, R&D results, inspection data and predictive models for fuel channel management within an operating unit. Initial market feedback has been positive, and field trials are planned to begin shortly.

Enhancing Reactor Performance

Key to the competitive performance of nuclear plants is the management of reactor aging mechanisms to ensure that critical systems and components achieve and even exceed their design lives. AECL researchers are working on several initiatives to protect and prolong steam generators and feeder pipes in both existing and new reactors, including:

- Research into the chemistry in steam generators during lay-up periods to avoid the concentration of corrosive impurities in crevices. By modifying the current composition of chemistry control in the boilers, the researchers have been able to greatly reduce and prevent the deposition of particulates. This, in turn, should significantly reduce the frequency of secondary side cleaning required to maintain steam generator integrity and efficiency. The end result is significant cost savings and enhanced steam generator performance.
- Research to better understand the mechanisms of feeder tube degradation and to develop corrosion-inhibiting treatments is underway with our CANDU industry partners. In addition, laboratory tests and reactor data analyses are being done to optimize the process to limit feeder degradation. Results continue to support AECL's recommendation to operate at the low end of the pH specification. Several CANDU units are now operating at this lower pH; utilities have the option of using revised procedures or installing a dedicated pH control ion exchange column.
- For situations where feeder replacement is required to extend life, AECL has developed low profile tooling, 3-D computer modelling, and qualified field procedures. Several outlet feeders were successfully replaced using these tools and procedures. Corrosion tests and stress analysis using the Chalk River Laboratories research reactor indicate that the material specified for feeders in new CANDU projects and for replacement feeders is resistant to degradation.



David Lee, Radiation Surveyor, Chalk River

Darrell Laroche, Metallurgical Engineering Technician, Chalk River

Walter Benz, Mechanical Technologist, Chalk River

APPRENTICE MAKES STAR APPEARANCE

You may not see him on television, but AECL's award-winning apprentice is helping to excite Ontario students about possible careers in the skilled trades.

Jerry Fryc, a graduate of AECL's Sheet Metal and Plate Worker Apprenticeship Program, won first place in the Ontario Sheet Metal Apprentice Competition by achieving top scores on a variety of tests and building a two-foot-tall copper lighthouse. Jerry has since participated in a local career fair designed to help high school students learn about and pursue career opportunities in the skilled trades. He is also competing in the national competition later in 2005.

Meeting Expectations

AECL researchers are continuing to make good progress toward completing the research and development required to close out the Canadian Nuclear Safety Commission's Generic Action Items (GAIs). Activities focus on understanding basic phenomena and their interactions as required to assess, reduce and mitigate the risks of an accident. In total, all but three of 20 remaining GAIs will be completed within the next 18 months. CANDU utilities are developing an industry position on the remaining three to present to the CNSC.

The molten fuel moderator interaction test, in support of CANDU reactor safety, is one of the most important of the GAI projects. The test involved for the first time the high-pressure ejection of molten corium (representing melted reactor fuel) at temperatures in excess of 2000°C into water – simulating a severe (but very low probability) accident in a CANDU reactor.

Data from the tests will be used to validate codes used in safety analyses to assess the impact of severe accident scenarios. The work was conducted under the scrutiny of AECL's industrial partners, numerous international observers and regulatory officials. It was a significant achievement given the quality of data generated, as well as the technical complexity of the experiment.

While not all the GAI projects are as complex, each has presented its own unique challenges and provided valuable safety or operating information.

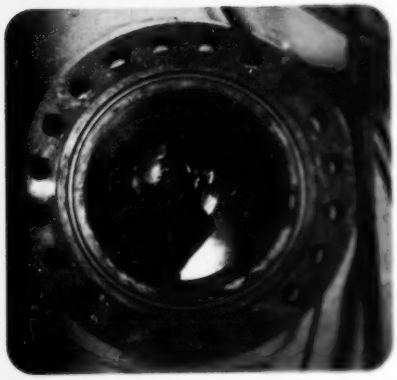
Reactor Development

AECL is advancing every aspect of CANDU reactor technology through an evolutionary development strategy that builds on the many strengths of CANDU while improving reactor safety and performance. This strategy is applied to both the key technologies used in the reactor and to reactor project applications.

This focus helps ensure that innovations are based on current experience and reduces risks, development costs, and product development cycle times. It also assures existing and future CANDU operators that the technology will never become obsolete or be left unsupported. They can be confident that CANDU investments made today wi' result in technology that is competitive now and for the foreseeable future.

World Class Technology

The CANDU 6 is AECL's state-of-the-art Generation II reactor, available for immediate deployment, and a credible bridge to the Advanced CANDU Reactor, which is under development. CANDU 6 related research and development is focused on short-term product improvements.



Stuart Parrott, Mechanical R & D Engineer, Whiteshell

New Generation

The Advanced CANDU Reactor (ACR) is AECL's next-generation (Generation III+) reactor.

The ACR represents the culmination of more than 50 years of CANDU reactor development. The result is a highly competitive reactor meeting the latest licensing requirements. Additionally, the ACR provides the opportunity for innovative future applications including environmentally friendly hydrogen production via nuclear-generated electricity and recovery of oil from Alberta's oil sands through economic nuclear-produced steam.

During the year, AECL successfully advanced its program to licence the ACR, including completion of the pre-application review for the ACR-700, the first step toward Design Certification in the USA.

However, customer feedback in key markets such as Canada, China and the UK have indicated greater interest in the larger ACR-1000 design.

The ACR development program focus on core technology means that, with basic engineering for the ACR-700 about 60% complete, most of the work to date is also generic to the ACR-1000. The basic design of the ACR-1000 is similar to that of the ACR-700, operating at similar reactor coolant system pressures and temperatures, and using the same key components. The major difference is in the number of fuel channels, which will be increased proportionately, and the doubling of steam generators from two to four.

Licensing Initiatives

Initial pre-licensing activities with the Canadian Nuclear Safety Commission (CNSC) is centred on core ACR technology, and the ACR-700 application. The core technology focus will continue, with the pre-application review now shifting to the larger ACR-1000, given the strong opportunity for this product in Canada.

As part of the international licensing initiative for ACR, Chinese regulators are working alongside the CNSC to assess the ACR for Chinese licensing requirements and a plan for Chinese licensability review has been prepared.

SEEKING GUIDANCE FROM LEADING NUCLEAR EXPERTS

The Science and Technology Committee of AECL's Board of Directors is responsible for setting policy, monitoring and providing oversight, and reviewing and assessing risk associated with the organization's science, technology and environmental programs. To assist the Committee in fulfilling this critical role, AECL draws on the expertise of an external Research and Development Advisory Panel made up of scientists and nuclear experts from academia and industry. The Panel, whose role it is to advise on strategic needs, alliances, and the direction of AECL's research and development activities, met four times in 2004. It reported that the programs are well planned, appropriate and well managed.

(Please see page 54)

Nithy Nitheanandan, Engineer *(left)*, and Bob O'Connor, Technician, Chalk River

Peter Moss, Glass Blower, Chalk River

MYTH > The nuclear industry sponges off Canadian taxpayers **FACT** > Since 1952, Canada has invested $6 billion for CANDU-related Research & Development > Up to the year 2000, AECL and the Canadian nuclear industry have provided a $36 billion return on investment > The Canadian nuclear sector contributes up to $6 billion annually to our country's GDP and directly employs 30,000 highly skilled and respected individuals

In the US, AECL and AECL Technologies successfully completed the two-year-long Familiarization and Issue Identification Phases of the US licensing review by the Nuclear Regulatory Commission (NRC). AECL plans to bring this pre-application work to completion, to position ACR technology to be ready for future Design Certification in the USA.

International Cooperation

During the year, Canada and China signed a Memorandum of Understanding (MOU) that will result in greater nuclear energy cooperation. The MOU establishes a framework for collaboration on R&D programs on nuclear energy and its applications, with the goal of further improving cost and safety of nuclear energy systems.

Additionally, AECL and the Shanghai Nuclear Engineering Research and Design Institute (SNERDI) have agreed to undertake joint development of advanced technology and products related to the CANDU reactor, with a focus on ACR. The agreement provides a platform to promote the localization and further development of CANDU technology in China, building on the success of the Qinshan project.

Protecting Intellectual Property

Protecting and managing intellectual property is a major concern for any advanced technology company. All of AECL's Technical Information is being migrated from a variety of electronic databases into a single company-wide archive, TRAK. TRAK will facilitate the management of and access to business documentation and will help ensure that all of AECL's intellectual property is properly identified, archived and readily available. A continued focus will be to leverage this asset in both nuclear and non-nuclear markets through increased communication and interaction with AECL's product managers.

Isotope Production

In addition to supporting research and product development activities, AECL's NRU research reactor produces radio-isotopes for medical and industrial use. These isotopes are supplied to MDS Nordion, which further processes and then distributes them to customers around the world. Each day, more than 50,000 medical procedures are administered with isotopes produced in the NRU.

In 2004–05, the production and processing of these isotopes in the Molybdenum Processing Facility continued to meet very stringent customer demands with a supply reliability factor of 99%. However, the revenue earned through isotope sales declined slightly, reflecting market demand and the impact of a stronger Canadian dollar.

New Dedicated Isotope Facilities

Long term, secure supply of isotopes will be provided by the MAPLE reactors, which are being built at AECL's Chalk River site. These facilities are owned by MDS Nordion and will be operated by AECL.

During the year, AECL continued to apply significant resources to the task of completing this project. The focus of these project activities included licensing, commissioning, and preparations for Operations.

The new ACR-1000 will be a reliable and affordable supply solution designed to meet future energy demands.

MYTH > The nuclear industry sponges off Canadian taxpayers **FACT** > Since 1952, Canada has invested $6 billion for CANDU-related Research & Development > Up to the year 2000, AECL and the Canadian nuclear industry have provided a $36 billion return on investment > The Canadian nuclear sector contributes up to $6 billion annually to our country's GDP and directly employs 30,000 highly skilled and respected individuals

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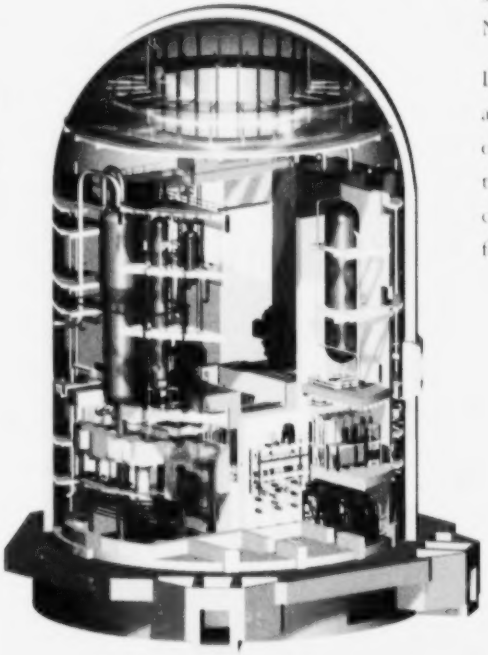


The new ACR-1000 will be a versatile, cost-effective supply solution designed to meet future energy demands.

ENVIRONMENTAL MANAGEMENT (LIABILITY MANAGEMENT UNIT)

PERFORMANCE vs OBJECTIVES

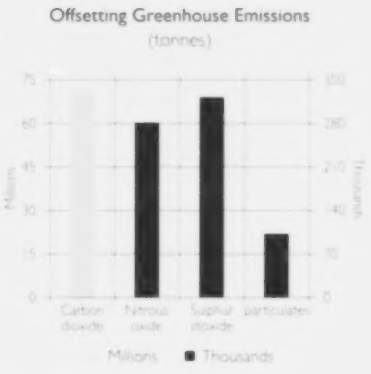
2004/05 Objectives	2004/05 Results	2005/06 Objectives
Apply technology to enhance CRL waste and decommissioning programs.	• Project to consolidate historic fuel waste approved. • The conceptual design of a new Waste Analysis Facility was completed.	• Achieve 90% of decommissioning milestones. • Establish Decommissioning Effect Index. • Establish a Liability Management Business Unit.
Achieve Stored Liquid Waste Project milestones.	• The conceptual design was completed and the environmental assessment was prepared.	• Achieve 90% of decommissioning milestones.
Achieve key decommissioning plan milestones.	• Completed phase 1 decommissioning of the hot cells at the Whiteshell Laboratories. • Concluded environmental assessment for fuel storage bays at experimental reactor in Chalk River. • Comprehensive preliminary decommissioning plan for the Chalk River site submitted to the regulator.	• Achieve 10% improvement in the Decommissioning Liability Index.
Effectively manage all regulatory, quality, safety, security and environmental incidents.	• Achieved 2% increase in the Environmental Performance Index versus planned improvement of 5%. • Achieved ISO 14001 certification for environmental management program at Chalk River.	• Achieve 5% improvement in Environmental Performance Index. • Establish environmental objectives for products and services.
Achieve reduction in radiation exposure to staff.	• Radiation exposure limit improved by 2.5% but below plan of 5% due to increase in on the job training for new employees.	• Achieve 5% reduction in radiation exposure to staff.
Achieve reduction in lost work days due to accidents.	• Achieved 17.2% reduction in frequency and 17.6% reduction in severity of accidents exceeding 15% planned improvement.	• Achieve 10% improvement in lost work days due to accidents.
Enhance public and government understanding of nuclear benefits and safety.	• Ipsos-Reid survey showed 49% support for nuclear nationally and 64% in Ontario. • Communications program launched for effective dialogue with stakeholders and the public.	• Achieve greater than 50% national support for nuclear.
Implement Change Management Initiatives.	• Improvement projects launched, based on employee feedback, in areas including internal communications and process improvements to address customer satisfaction.	• Complete safety and compliance training requirements. • Commit 4% of payroll to corporate-wide training.

ENVIRONMENTAL MANAGEMENT

MEETING TODAY'S ENERGY NEEDS WITHOUT COMPROMISING TOMORROW'S ENERGY SUSTAINABILITY AND SECURITY BECAME AN EVEN MORE CRITICAL GLOBAL CONCERN IN 2004 AS WORLD DEMAND FOR CLEAN ENERGY CONTINUED TO RISE WITH THE STEADY INDUSTRIAL GROWTH AND MODERNIZATION OF CHINA, INDIA AND OTHER EMERGING INDUSTRIAL POWERS

More and more, nuclear energy is being recognized as contributing significantly to sustainable development by producing clean and affordable energy. And with abundant supplies of uranium, nuclear energy has a key role to play in meeting the rapidly growing energy needs of an expanding world population, without polluting the environment or contributing to global warming.

In Canada alone, CANDU nuclear reactors helped to reduce total emissions of greenhouse gases by about 85 million tonnes last year.*



In 2004, CANDU reactors produced 84,500 GWh of electricity. Producing the same amount of energy using fossil fuels would have resulted in the emissions listed above.

Point Lepreau, Canada

Commitment from the Top

AECL's commitment to sustainable development starts at the top and is factored into all of its business planning activities. In 2004, this commitment became evident at the Chalk River Laboratories when it achieved the ISO-14001 Environmental Management System certification, recognized internationally as a key to guiding organizations to environmental responsibility and continual improvement.

AECL's President and CEO has overall responsibility for the company's environmental performance and social responsibility. A Senior Environment Committee, appointed by the President in 2004 and chaired by the Chief Environmental Officer, ensures AECL's responsibilities are coordinated and reviewed.

The commitment doesn't stop there. All employees receive mandatory training on AECL's Environmental Policy and supporting program – making it clear that everyone in the organization has a contribution to make in protecting the environment.

At the same time, AECL recognizes the critical role of transparency in establishing the credibility of its environmental performance. Tools such as the Chalk River Environmental Protection Program Index are used to track and demonstrate performance against environmental objectives and targets. In 2004, the Index showed an overall environmental program performance improvement of 4%.

Overall, AECL's environmental performance has been steadily improving in recent years. This is documented in the company's annual Environmental

*Offset Greenhouse Emissions in Canada 2004

MYTH > Nuclear waste is a problem **FACT** > Nuclear is the only industry that accounts for all its wastes, which are safely stored on site > After 40 years of nuclear energy in Canada, the total amount of used fuel from our nuclear power plants could fit into five hockey rinks from the ice level to the height of the boards

Performance Reports, which summarize the combined environmental performance of AECL sites in Canada. The report is available to the public on AECL's website (www.aecl.ca).

Equally important is the environmental performance of AECL's CANDU reactors around the world. The release of very small amounts of radioactive material into the environment is an inevitable consequence of nuclear power production. Even though these emissions are well within safe limits, AECL's continuing program of research and design improvements ensures that emissions from the new generation of CANDU reactors will be even lower than those operating today.

Another important challenge is the management and disposal of radioactive waste. The volumes of radioactive waste generated by CANDU plants are extremely small compared to the amount of energy generated. The storage of used fuel is a proven and safe technology, and the development of long term waste management options such as a geological repository, while not needed in the short term, is continuing to progress through ongoing engineering studies and the public consultation efforts of the Nuclear Waste Management Organization.

Environmental Projects

A number of important environmental projects are helping to ensure that AECL's activities and facilities do not negatively impact the environment.

In 2004, an Ecological Effects Review of the Chalk River Laboratories assessed the overall environmental impact from radiological and non-radiological activities at the site. The study concluded that no significant ecological effects are likely to result.

Also at the Chalk River Laboratories, two major projects that will ensure the ongoing safe storage of radioactive liquids and used fuel wastes are progressing as scheduled. Detailed engineering is underway and the projects are on track for completion in 2008 and 2010, respectively.

In March 2005, AECL submitted a Comprehensive Preliminary Decommissioning Plan (CPDP) to the Canadian Nuclear Safety Commission. The CPDP presents the strategy, scope, planning assumptions, and schedule as they apply to the decommissioning of the Chalk River facilities. The document is unique in that it does more than simply address a regulatory requirement. In large measure, the CPDP represents the culmination of a major initiative that was undertaken by AECL in 2003 in concert with other government agencies to develop a conceptual technical strategy for managing the nuclear legacies on AECL sites that would:

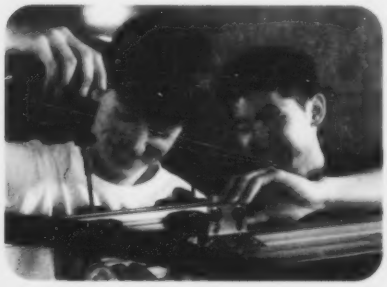
- be consistent with modern international standards and practices;
- ensure the health, safety and security of the public and employees, and protect the environment; and
- address regulatory requirements and expectations.

A copy of AECL's Comprehensive Preliminary Decommissioning Plan can be found on the Corporation's website (www.aecl.ca). A decision from the CNSC on the acceptability of the plan is expected in Summer 2005.

Environmental Assessment Study

In Port Hope, Ontario, the Low Level Radioactive Waste Management Office (LLRWMO), which AECL operates for Natural Resources Canada on a cost-recovery basis, has completed the Environmental Assessment Study Report for the remediation of historic liabilities (mainly contaminated soils) in this and neighbouring municipalities. The report found that the Port Hope Project can be carried out without significant residual adverse effects on the environment or human health and safety. The project has involved extensive public consultation on design, application of mitigation measures, monitoring and long-term site planning.

ROBOTICS COMPETITION COMBINES FUN AND LEARNING



For the past two years, AECL has joined with Lorne Park Secondary School in Mississauga in an innovative, international robotics design and development competition. The annual First Robotics Competition, as it's called, brings together high school teams, sponsors, mentors and technical professionals to develop a robotics solution to a tough engineering challenge in a competitive game environment.

Because of the growing role of robotics in nuclear inspection and maintenance work, AECL boasts state-of-the-art expertise in robotic design and control.

By all accounts, the Lorne Park–AECL combination has been an effective team. The high school students and teachers find the robotics challenge intriguing, and value the expertise of the AECL volunteers. They, in turn, have found working with the students to be rewarding and energizing.

David Cox, Waste Management (left), and Donna Roach, Community Relations, Chalk River

More detailed information on the LLRWMO and its activities can be found on its website, (www.llrwmo.org).

Security is Everyone's Concern

Because AECL deals with nuclear technology and materials, security is of vital importance to the organization.

Access to AECL facilities is strictly controlled to protect employees as well as vulnerable materials and systems. To ensure these measures are effective, the Chief Security Officer is undertaking a careful analysis of the company's facilities and operations to identify vulnerabilities and develop prudent solutions, where required.

Employees, of course, are a critical line of defence in any security program. Comprehensive security training and information sessions are helping ensure that employees understand their individual accountabilities and that they identify and report suspicious conditions or situations. In addition, AECL regularly cooperates with national safety and other organizations to test emergency response plans and capabilities in the event of a nuclear incident.

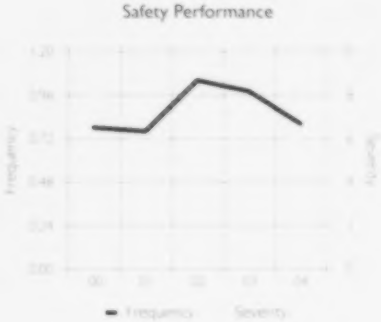
In 2004, AECL participated in Exercise Follow On, the second of four federally-funded exercises designed to test the integrated capability of federal teams in response to several simulated terrorist scenarios involving radioactive material.

Paul Barnsdale, Compliance and Radiation Protection (inside vehicle), and Duane Baines, Radiation Surveyor, Whiteshell

Other organizations involved in the exercise included Natural Resources Canada, Health Canada, Defence Research and Development Canada, Canadian Nuclear Safety Commission and Royal Canadian Mounted Police.

Safety at the Core

Safety is at the core of everything AECL does – from the design of its CANDU reactors, to the operation of its nuclear laboratories, to the day-to-day work of its employees.



Heightened safety awareness and training are contributing to improving our safety performance. AECL's overall goal of a 15% reduction in frequency and severity for 2004 lost time accidents was achieved. The 15% was calculated on the average of the previous 3 years.

Despite an enviable record, safety is never taken for granted. The organization actively seeks support and insights from industry safety experts, subscribes to "best practices" experience and programs from nuclear and related industries, and actively participates in industry forums to improve its safety performance. Key to its development of a proactive safety culture are strong leadership from senior management, employee training and communications, and continual assessment and improvement initiatives.

Last year AECL assessed the status of safety culture at its Chalk River Laboratories through a number of surveys and focus groups, and documented and communicated the results. As a result of this assessment, an improvement plan was developed that included a comprehensive three-day Safety Culture workshop and on-going surveys to assess differences and improvements in safety culture.

Other ongoing safety-related initiatives include:

- upgrading procedures to increase and improve the use of the "Non-Conformance Reporting" tool, designed to encourage staff to develop a questioning attitude, and alert management to all safety-related issues;
- development of "tools" to enhance the ability to assess and measure its safety culture, identify gaps and develop focused improvement plans. These include the Safety Culture Survey tool and the Safety Management System (SMS) tool. The SMS tool integrates all management processes, programs, activities and tools into a coherent system to make all aspects of management more transparent, show interdependencies and interrelationships, and track safety-related trends;
- enhanced manager and supervisor Radiation Protection Awareness Training and refresher training for staff.

Focus on Health and Safety

The creation and launch of a new corporate Health and Safety Policy clearly established employee health and safety as a top priority for the organization. This was followed and reinforced by presentations from senior executives and supervisors, and further augmented by an in-house safety training video based on an actual incident.

During the 2004/2005 fiscal year, AECL employees twice surpassed 1 million hours without a recordable lost time injury.

Neil Burton, Radiation Surveyor, Chalk River

AN ENVIRONMENTALIST FOR NUCLEAR ENERGY

Tamara Yankovich is a scientist and a committed environmentalist with a PhD in Watershed Ecosystems from Trent University in Peterborough, Ontario.

Tamara is also an AECL employee at the Chalk River Laboratories, where she specializes in the study of environmental issues associated with nuclear power generation such as the release and movement of radioactive emissions from the stations through the surrounding ecosystems.

"The real issue is public perception. People are afraid of what they don't understand, so it's important that we provide the credible evidence to help them understand the real impact our facilities have on the environment, which is overwhelmingly positive."

Tamara feels so strongly about the issue that she's volunteered for AECL's Community Speakers' Program and recently made a presentation to her local Rotary Club.

MYTH > Nuclear is unsafe **FACT** > No worker or member of the public has ever been harmed by a CANDU facility > Best safety record of any industry, or competing nuclear power technology > Nuclear is the most regulated industry in Canada for health, safety and environment > Enhanced public security/ anti-terrorism features are being incorporated in the Advanced CANDU Reactor design

AECL's construction and maintenance contractors also performed well. Contractors working at the Chalk River Laboratories completed another full year without experiencing any lost time injuries – an impressive accomplishment.

Reaching out to Communities and Stakeholders

AECL values its partnerships with the communities where its facilities are located and with the groups and individuals who have a stake in the organization and success of the CANDU industry.

Comprehensive public information and consultation programs help to keep communities and stakeholders informed and to solicit input on AECL plans and projects. For example, community open houses were held and a variety of information was distributed during the year to keep local residents and other stakeholders informed about the Fuel Packaging and Storage Project at Chalk River.

Likewise, community meetings in 2005 with environmentally-focused groups and associations provided valuable input to the Ecological Effects Review of the Chalk River Laboratories.

As part of its Comprehensive Preliminary Decommissioning Plan for the Chalk River Laboratories, AECL has developed a framework for communication and public consultation. This framework provides for regular updates on decommissioning activities, as well as an opportunity for the public to provide input on a regular basis.

Other highlights in 2004–05 included:

- regular briefings on site-specific and corporate initiatives with government officials as well as business associations, service groups and neighbouring communities around the Chalk River and Whiteshell Laboratories;
- ongoing interactions with three important neighbours: the Algonquins of Pikwàkanagàn and the Concerned Citizens of Renfrew County near Chalk River Laboratories, Ontario, and the Sagkeeng Nation near Whiteshell Laboratories in Manitoba;
- employee donations of more than $100,000 to the 2004 United Way campaign, and another $120,000 for tsunami relief, as well as support for and participation in other charitable and community fundraisers.

(left to right) Jeffrey Keyes, Juliette Turcotte, Shea Antle, Rona Siegel, Rick Jones, Bill Goedegebuure, Chalk River

Educational Support

Encouraging Canada's students to pursue careers in nuclear science, engineering and the skilled trades is an important challenge for AECL and other members of the nuclear industry. By partnering with schools and participating in career fairs to alert students to the many exciting career opportunities in the nuclear industry, AECL is helping to ensure it has the skilled people it will need to drive its success in the future.

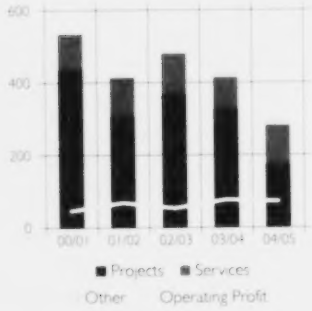
As such, AECL is a proud sponsor of many educational programs throughout Canada in partnerships with other organizations and education institutions. This includes the Youth Science Foundation Canada (YSF), which showcases an annual Canada-Wide Science Fair, held on a rotating basis across Canada. AECL sponsors YSF's regional science fairs and is also a proud supporter of the annual Canada-wide fair, which sends students home with a wealth of skills – organizing, analyzing, evaluating, presenting, public speaking, research and development of scientific projects – developed during the process of turning a single idea into a hypothesis and seeing it through to its conclusion.

FINANCIAL HIGHLIGHTS

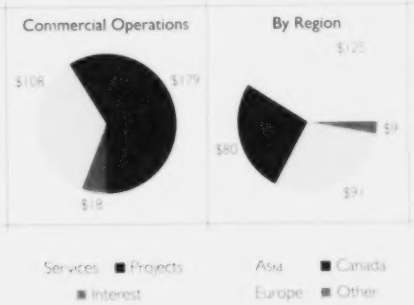
BUILDING ON THE RECENT NEW BUILD SUCCESSES IN CHINA AND ROMANIA, AECL WILL CONTINUE TO PURSUE OPPORTUNITIES FOR NEW REACTOR SALES ON A GLOBAL BASIS WITH A FOCUS ON COUNTRIES WHERE AECL ALREADY HAS A STRONG PRESENCE

Commercial Operations

Revenue and Operating Profit
($ millions)



2004/2005 Revenue
($ millions)

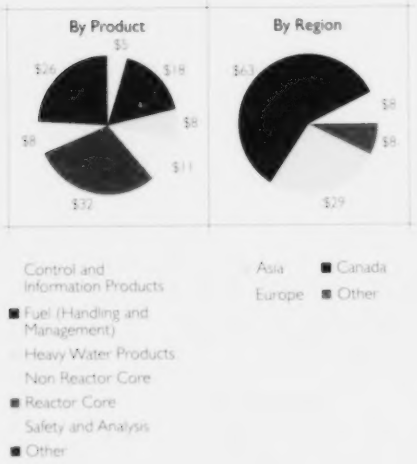


Commercial Operations Revenue

In spite of revenue reduction, operating profit relative to sales improved in the same period, reflecting excellent execution of major projects and company-wide costs improvements.

Within the total revenue of $305 million from Commercial Operations, exports were $225 million, contributing positively to a favourable balance of trade for Canada in 2004-05.

2004/2005 Services Revenue
($ millions)

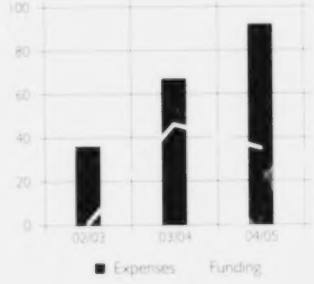


Services Revenue

The diversity of the Services' revenue base and geographic coverage provides a solid basis for future growth.

ACR

ACR Funding and Expenses
($ millions)



ACR Expenses
2004/2005

ACR

Investment in ACR product and market development accelerated in line with the level of activities required in achieving critical ACR milestones. ACR development activities continue to be partially funded by the Government of Canada.

MANAGEMENT'S DISCUSSION AND ANALYSIS

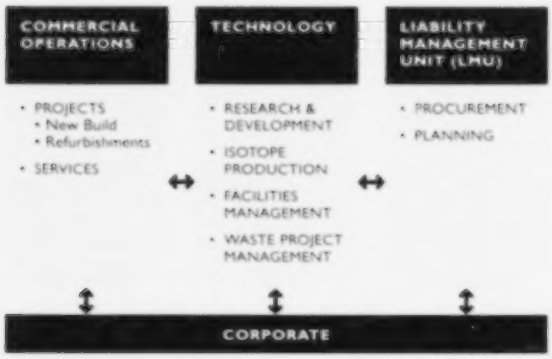
This management's discussion and analysis (MD&A) has been approved by AECL's Audit Committee. It provides comments on the performance of the Corporation for the year ended March 31, 2005 and should be read in conjunction with the consolidated financial statements and accompanying notes included in this Annual Report.

This MD&A contains forward-looking statements with respect to AECL based on assumptions that management considers reasonable at the time of preparation. These forward-looking statements, by their nature, necessarily involve risks and uncertainties that could cause future results to differ materially from current expectations. We caution the reader that the assumptions regarding future events, many of which are beyond the control of AECL, may ultimately prove to be incorrect since they are subject to risks and uncertainties.

Financial Review

The Corporation's results are primarily evaluated by the following business line segments: Commercial Operations, Technology and Liability Management Unit (LMU). Each segment is charged to achieve its financial goals as established in the Corporate Plan and Operating and Capital Budgets submitted and approved by the Shareholder at the beginning of the fiscal year. Profit earned from Commercial Operations pays for expenditure on research and development, to the extent that expenditure exceeds Government of Canada funding levels.

AECL



The Commercial Operations segment is responsible for two lines of business: Projects and Services. Projects include new-build and refurbishment projects, together with related project management services, equipment procurement and sale of heavy water. The Services business includes a full line of engineering and technical products and services that support operating CANDU plants and improve customer productivity and competitiveness.

The Technology segment develops new reactor technology and supports the safety, licensing and design basis for the life cycle of the CANDU product set and other nuclear technology, in addition to the manufacture and sale of medical isotopes and construction of related facilities. This business segment is closely linked to Commercial Operations and the LMU, supporting commercial project delivery activity, new product development, and project execution of the decommissioning and waste management program.

As a nuclear operator, AECL must decommission its facilities at the end of their operating life. AECL's decommissioning and waste management obligations have arisen from a wide variety of sources, including activities before AECL was incorporated in 1952, wastes received from universities, medical facilities, production of medical isotopes, government and industry from across Canada, and research and development (R&D) programs in support of Canada's nuclear power program. The LMU has been established as a procurement and planning organization with a mandate to manage the decommissioning and waste management program in an arm's length and cost effective manner, and to ensure funding received from the Government of Canada for the program is spent in accordance with the plans filed with Canadian Nuclear Safety Commission (CNSC). The LMU facilitates greater transparency in financial reporting and accountability for program objectives in accordance with good governance. In addition, the LMU operates the Low-Level Radioactive Waste Management Office (LLRWMO) on a cost-recovery arrangement with Natural Resources Canada.

Corporate Office provides essential strategic direction and common support services to the individual business segments, costs of which are completely charged out to the individual business segments based on periodically negotiated service level agreements.

2004–2005 Actual Results Compared to 2003–2004

KEY FINANCIAL RESULTS

($ millions)	Actual Results 2004–2005	2003–2004
OPERATING PROFIT/(LOSS)		
Commercial operations	$ 76	$ 76
Technology	(110)	(42)
Liability management unit	(1,807)	(68)
Net loss	$ (1,841)	$ (34)

In financial terms, 2004–2005 was a transition year for Commercial Operations, with an anticipated reduction of revenue following completion of a major overseas project. Against this background, revenue from Commercial Operations, while comparable to the Corporate Plan target, is lower than the previous year. However, restructuring measures adopted by the Services group in the previous year

started to show positive results. This improvement, together with effective project execution, contributed to the sustained level of operating profit. Intensive marketing activities during the year positioned the Corporation for future growth, notably the refurbishment of existing CANDU units. Given the progress on contract negotiations, we believe that the refurbishment opportunities in Canada will move ahead in the coming year, subject to the outcome of financing decisions, and the stage now appears well set for a steady increase in revenue for Commercial Operations.

In the Technology segment, basic engineering continued on the development of the Advanced CANDU Reactor (ACR), a next-generation, evolutionary CANDU design. The funding for the ACR program has varied from year to year. Government funding was $35 million in 2004–2005, and $46 million in the previous year. Total ACR spending increased in 2004–2005 to meet development and marketing milestones. Also included in this segment are research and development activities, the sale and manufacture of medical isotopes, and the construction of isotope production and processing facilities under a contractual arrangement with MDS Nordion. Overall progress in the construction of these facilities was affected by technical and regulatory issues, with an anticipated increase in the project cost re-estimates. The Technology segment generated a net charge of $110 million in 2004–2005 compared with $42 million in 2003–2004, reflecting higher overall costs and lower government funding.

During the year, the LMU completed a review, together with Natural Resources Canada (NRCan), of AECL's decommissioning and waste management program. A revised program adopting emerging international practices of prompt decommissioning has been developed.

Prompt decommissioning involves addressing the waste management activities early in the decommissioning cycle, and optimizing the safe storage period to avoid unnecessarily deferring activities associated with physical demolition, waste processing and ultimate disposal. Consequently, the timeframe for associated decommissioning activities would be accelerated and reduced to 70 years from the previous plan of 100 years. The change in approach resulted in a significant adjustment of $1,792 million (net of accretion and expenses incurred) in discounted dollars to the decommissioning and waste management liability, increasing it to $2,750 million, compared with the previous year's restated amount of $945 million, restated to reflect adoption of the CICA accounting recommendation on asset retirement obligations. The increase was largely in recognition of the acceleration in timing of the program and additional waste management facility costs. Consequently, the Liability Management Unit reported a loss of $1,807 million compared with a loss of $68 million (restated) in the previous year.

The Corporation reported a net loss of $1,841 million compared with a net loss of $34 million in the previous year largely reflecting the LMU and Technology segment's results.

2004–2005 Actual Results Compared to Operating Budget

KEY FINANCIAL RESULTS

($ millions)	2004–2005 Actual Results	2004–2005 Operating Budget
OPERATING PROFIT/(LOSS)		
Commercial operations	$ 76	$ 63
Technology	(110)	(78)
Liability management unit	(1,807)	—
Net loss	$ (1,841)	$ (15)

Compared with the Operating Budget, actual earnings from Commercial Operations were higher, reflecting stronger performance on offshore projects. Technology reported a higher net expense, as a result of increased operational costs to meet health, safety and regulatory requirements at the Chalk River Laboratories. The higher net expense was also partially affected by the increased project estimates for the isotope production and process facility. The LMU generated a substantially larger net expense attributable to the impact of the change in the decommissioning and waste management liability as discussed above. The Operating Budget assumed no such change as the financial impact of the revised decommissioning and waste management plan was uncertain at the time the Budget was established.

Commercial Operations

Within Commercial Operations, the key business drivers underlying the Projects business are executing projects on time and on budget by drawing on AECL's unique expertise and rigorous quality improvement process; meeting contract specifications and customer requirements; increasing market share through strategic partnerships and by providing innovative contractual and financing arrangements. The business drivers underlying the Services business is to meet our customer needs in improving their production capacity, increasing operating safety and optimizing reactor performance. AECL's strengths in the Services business include CANDU technical expertise, product development capability, emergency response, and unique specialist capabilities.

COMMERCIAL OPERATIONS

($ millions)	Actual Results 2004–2005	2003–2004
REVENUE		
Projects	$ 179	$ 326
Services	108	86
Interest	18	19
Total revenue	$ 305	$ 431
Operating profit	$ 76	$ 76

As anticipated, consolidated revenue from Commercial Operations decreased to $305 million in 2004–2005 compared to $431 million in 2003–2004, primarily due to a one-time activity in the previous year related to the heavy water sale for the Qinshan project in China. The impact on operating profit, however, was cushioned by effective project execution, improvement of the Services business and realization of gains on successful completion of projects. Reflecting this, operating profit at $76 million for 2004–2005, while exceeding the Plan target, remained at the previous year's level despite a significant reduction in revenue.

Revenue from the Projects business declined to $179 million from $326 million in 2003–2004 due to the inclusion of heavy water sale in the previous year as mentioned above. Excluding this transaction, Projects revenue was slightly lower than the previous year. Continued work on the Cernavoda project and preparatory work on domestic refurbishment projects provided important contributions, mitigating the impact of lower activities on projects that were completed or nearing completion.

The Projects business has a proven track record in successfully managing major projects over the past decade in China, Korea and Romania. Final Acceptance, by the customer, of the CANDU Units 1 & 2 built in Qinshan, China was achieved in April 2005. Building on this success, AECL is pursuing near term opportunities for additional CANDU 6 units in China, and for the Cernavoda Unit 3 new build project in Romania, as well as the Wolsong Unit 1 retubing project in Korea. On the domestic front, the immediate focus for refurbishment and retubing projects is on Bruce Power A Units 1 & 2 and New Brunswick Power's Point Lepreau Station. Beyond the near term, AECL will pursue refurbishment and retubing projects at Gentilly 2, Québec, and additional projects in Canada, Korea and Argentina. As part of the Projects business' growth strategy, AECL will introduce the ACR-1000 in Ontario and in the long term, globally.

Revenue from the Services business grew 26% to $108 million, reflecting an increase in the sale of engineering services and commercial products to both domestic and international customers. A portfolio of technology-based products contributed to this growth, specifically, the sale of Emergency Core Cooling Strainers technology in Europe. AECL is pursuing opportunities worldwide for the sale of this and other technology developed by the Technology segment.

The Services business also included commercial work related to decommissioning activities for our clients with participation from LMU. In this area, progress continued on schedule with respect to a multi-year development project in Korea, related to the next generation of AECL's proven MACSTOR used fuel storage system. AECL continued to provide engineering consulting services to the nuclear waste repository project at Yucca Mountain, Nevada, U.S.A. as it moves from the research phase to the implementation phase.

A significant milestone in a collaborative effort was also reached with Japanese and French waste management organizations, by completing all subsurface work for the Tunnel Sealing Experiment at AECL's Underground Research Laboratory near the Whiteshell Laboratories (WL) site.

In the past year, the Services business has strengthened its market position through:

- leveraging strategic partnerships and risk sharing with other major nuclear suppliers. The teaming agreement with Babcock & Wilcox Canada on the OPG and Bruce Power Feeder Replacement Tool Development Program is one example;
- improving customers' satisfaction to position AECL as their preferred supplier;
- improving project delivery through the appointment of customer-centric project managers, who manage all projects related to a particular customer;
- implementing a more rigorous project management system and an improved quality assurance process to facilitate effective management and control of project costs.

Going forward, as energy needs grow globally and available hydrocarbon resources dwindle and become more expensive, the need for new reactors and follow-on services will grow. This in turn will provide increased opportunities for Commercial Operations. AECL's business strategy in support of growth is to continue enhancing technical resources, product base and flexibility in meeting customer needs, while strengthening strategic partnerships and effectively managing overhead costs.

Technology

	Actual Results	
($ millions)	2004–2005	2003–2004
Revenue	$ 53	$ 55
Funding	152	173
Expenses	(315)	(270)
Net expense	$ (110)	$ (42)

The Technology segment carries out the Government of Canada's policy mandate in support of nuclear technology and the nuclear industry.

The financial goal of this business segment is to manage with specific net expenditure targets within committed funding levels. Funding is derived from federal appropriations and, to a lesser extent, from cost-sharing agreements with Canadian provincial utilities. The Technology segment also performs revenue-generating activities, which contribute to the overall funding of the R&D program. Revenue-generating activities, comprised of the manufacture and sale of medical isotopes and commercial R&D work, are undertaken for profit. The overall net funding deficiency in this segment is absorbed by the Corporation through funds generated by Commercial Operations.

Commercial revenue within Technology, while contributing significantly to support the segment's activities, declined to $53 million from $55 million in 2003–2004, reflecting market demand for medical isotopes delivered to MDS Nordion, and the impact of a stronger Canadian dollar. The reliability rate for isotopes produced from the NRU reactor remained at the high level of 99% throughout the year while the availability of the reactor was marginally lower than the previous year.

Total funding in support of Technology activities for 2004–2005 was $152 million compared with $173 million in the previous year. Funding comprised of appropriations, cost recovery from third parties and deferred capital funding from appropriations received in prior years, which is used to offset related amortization. Within these totals, Government of Canada appropriations were $134 million in 2004–2005; $35 million for ACR support, and $99 million for Nuclear Laboratories support, compared with $46 million and $103 million, respectively, in the previous year. The support for Nuclear Laboratories has been declining since 1997, the year in which a major funding cutback was initiated following the Government of Canada's Program Review decision. Compared with 1997, this is $69 million lower than the level approved in that year, despite significant increases in costs to comply with environmental, regulatory and security requirements in recent years.

Cost recovery from third parties was $14 million, representing the CANDU Owners Group (COG) funding support for CANDU safety, licensing and design. This was slightly higher than the previous year. Included in this year's revenue was the commencement of the examination of pressure tubes from the Canadian CANDU stations under a five-year agreement signed with the utilities in Fall 2004. Amortization of deferred capital funding declined to $4 million in 2004–2005, reflecting complete amortization of a significant number of government-funded assets in the previous year.

Overall, total expenses for the Technology segment were $315 million compared with $270 million in the previous year. Within this total, investment for ACR was $92 million compared with $67 million in the previous year, primarily to meet development and marketing milestones for licensing support of the ACR. Expenditures are expected to stabilize for the next few years as we complete the largest portion of engineering and research deliverables. Within specific R&D programs, spending on activities to support the safety and performance of the entire CANDU fleet was kept close to the 2004 level, while spending on facility and operations were higher to meet health, safety and regulatory requirements.

AECL continually monitors the efficiency of operations and the required funding levels to satisfy its public policy mandate and its commitment to health, safety and environmental excellence. During the past several years, AECL has undertaken several independent reviews of the efficiency of operations and alignment of activities with the objectives of the Technology segment. These reviews indicated that the underlying processes were effective and efficient. In addition, management adopted a continuous business improvement methodology and implemented a program to further improve the efficiency and effectiveness of its operations. AECL management, as part of its Enterprise Risk Management processes, is assessing funding needs in light of regulatory and its own health, safety and environmental requirements. AECL's funding is not adequate to meet existing and new public policy obligations. The Shareholder, as part of the review of the AECL Nuclear R&D program and facilities, has asked AECL management to assess funding needed to satisfy its obligations.

The future outlook for the Technology segment is expected to continue in a similar orientation to the current direction but with expanded support to CANDU fleet refurbishment and life extension. Key initiatives include:

- maintaining and enhancing the safety, design and licensing basis of all CANDU reactors;
- supporting public policy for nuclear technology;
- developing pre-commercial CANDU technology;
- preserving capability and expertise needed to address emerging issues;
- completing ACR commercialization.

Liability Management Unit (LMU)

($ millions)	Actual Results 2004–2005	2003–2004
Government and other funding	$ 46	$ 50
Revision in estimate and timing of expenditures	(1,792)	(60)
Other expenses	(61)	(58)
Net expense	$ (1,807)	$ (68)

The decommissioning and waste management program has a long-term primary focus of addressing nuclear facility liabilities and managing associated waste. Facilities include those acquired from the early years of Canada's nuclear program, prior to the creation of AECL in 1952. Program activities include the stabilization of shutdown facilities, dismantling, decontamination, residual waste storage and disposal. These activities will result in major construction programs associated with enabling facilities related to waste management activities. The program is designed to achieve health, safety and environmental protection objectives in accordance with the Canadian Nuclear Safety Commission (CNSC) regulations.

The LMU maintains formal decommissioning plans that guide the execution of the program to address AECL's decommissioning obligations in the future. The short-term plan is based on periodic reviews of the program priorities, taking into account health, safety, environment and regulatory factors. The financial objective for LMU is to achieve various planned milestones within the funding level established in the Corporate Plan.

Funding for decommissioning and waste management activities for 2004–2005 is derived from parliamentary appropriations of $29 million, $8 million from the net proceeds of the sale and lease of government-funded heavy water inventory under a funding arrangement with the Government of Canada and $9 million of other revenue, largely composed of cost recoveries from third parties. Over the coming year, AECL will work with Natural Resources Canada to secure the necessary funding to begin implementing the revised decommissioning and waste management program.

Progress on government-funded activities for the past year included continuation of two major waste management projects with the objective of ensuring safe storage of radioactive liquids and used fuel wastes. These projects are expected to be completed in 2008 and 2010 respectively. Other activities included the systematic dismantling of redundant and aging experimental facilities and buildings at Chalk River Laboratories (CRL) and Whiteshell Laboratories (WL).

Work supplied on a cost recovery basis progressed well throughout the year. In Port Hope, Ontario, the LLRWMO completed an Environmental Assessment Study Report for site remediation (mainly contaminated soils) in local and neighbouring municipalities.

During the year AECL adopted the Canadian Institute of Chartered Accountants (CICA) requirements for asset retirement obligations as at the beginning of fiscal 2005. The new standard requires capitalization of the decommissioning and waste management liability and amortization over the useful life of the related assets. In addition, the liability estimate was updated to reflect current information such as the discount rate and other assumptions. The changes to the decommissioning and waste management liability related to implementation of the CICA standard have been treated as a change in accounting policy and applied retroactively. This resulted in restatement of the prior year liability with an increase in the liability from $431 million to $945 million.

In cooperation with the Shareholder, AECL developed a revised decommissioning and waste management strategy and implementation plan. The revised plan reflects an accelerated approach to decommissioning that is also being adopted internationally. This approach optimizes the costly safe storage periods, addresses waste management activities as early as possible and ensures, to the extent practical, that responsibility for decommissioning is not transferred to future generations. It also takes advantage of the current experience, skills and knowledge base available and allows for earlier space release for reuse. The revised plan reflects several important changes including the acceleration in timing of the activities, the inclusion of the construction and operation costs of enabling facilities required to permit waste processing, storage and long-term management, and the use of a more sophisticated and reliable costing model. Largely as a result of condensing the timeframe associated with the implementation of activities, the estimated cost of the decommissioning and waste management liability has increased substantially to $2,750 million in discounted dollars ($6,800 million undiscounted in current dollars) compared with the previous year restated amount of $945 million ($5,100 million undiscounted). The increase of $1,805 million, mainly pertained to the revised estimate adjustment of $1,792 million. The adjustment was charged to the current year Statement of Operations. Costs associated with waste generated from operations are charged to income as incurred and the decommissioning liability will be increased accordingly such that future periods are not impacted by current activities.

Cash Flow

Cash used in operating activities was $50 million in 2004–2005 compared to $16 million in 2003–2004. Utilization of outstanding project down payments and higher ACR spending against lower government funding support were important factors contributing to the use of cash in operating activities. Lower receipts from customers, affected by lower revenue, were also a contributing factor. This was partially offset by improved collections. Days Sales Outstanding on trade receivables decreased significantly to less than 40 days, from 69 days in 2003–2004. Within the operating activities, funds used for decommissioning and waste management increased by $9 million over 2003–2004 due to timing of expenditures in accordance with the annual decommissioning plan. The funds provided in 2004–2005 included an additional $2 million scheduled deposit to the Nuclear Waste Management Organizations (NWMO) trust fund, which is held by AECL on behalf of NWMO. As at March 31, 2005 the cumulative total for the fund including interest was $15 million, to meet the *Nuclear Waste Management Act* requirements in respect of the long-term management of nuclear fuel waste in Canada.

Investing activities generated a cash inflow of $5 million in 2004–2005, compared to a cash inflow of $20 million in 2003–2004. Short-term investments generated a net inflow of $12 million compared with a net inflow of $34 million in 2003–2004, reflecting lower levels of funds available for investment as a result of operational requirements over the year. Total funds invested in acquisition of property, plant and equipment were limited to $8 million compared with $14 million in 2003–2004, reflecting cost containment measures.

Financing activities were unchanged from 2003–2004 for the repayment of long-term debt to the Government of Canada. As at March 31, 2005, the Corporation's long-term debt totalled $4 million, compared with $5 million in the previous year.

Overall, AECL's year-end closing cash position, including segregated cash, was reduced to $61 million from the previous year's level of $107 million. Short-term investment totalling $6 million was lower than the previous year's level of $18 million. With this level of cash reserve, and subject to the anticipated cash advances from refurbishment projects expected to materialize in mid fiscal 2006, AECL will have adequate working capital for its planned operating needs over the year now in progress. However, interim financing

may be required if there are delays in the effective date for refurbishment contracts currently under final negotiations. Looking ahead over the five-year Corporate Plan period, significant cash requirements have been identified to carry out the revised decommissioning and waste management plan. A strategic review of the long-term financing requirements to meet the decommissioning obligations will be discussed with the Shareholder.

Outlook

2005–2006 will see the beginning of significant revenue growth in our Commercial Operations, fuelled by the refurbishment and life extension of CANDU nuclear reactors. The underlying factor supporting this growth is that refurbished nuclear plants are expected to be highly profitable for the owner/operator and represent the least-cost incremental generation option, in addition to contributing to Canada's clean air targets. Retubing activity in the domestic market is expected to spark growth in the early part of the five-year Corporate Plan period. As at the end of 2004–2005, contract negotiations on the refurbishment of Bruce Power A Units 1 & 2 and the Point Lepreau plant in New Brunswick were substantially completed and, depending on satisfactory conclusion of financing issues, these projects are anticipated to commence in 2005–2006. AECL has also completed refurbishment feasibility work for Hydro-Québec. This growth will be complemented by anticipated retubing activities in Korea and Argentina and additional projects in Canada. Reflecting this growth, and depending on the timing of project implementation, the Corporation is planning to add as many as 500 professional and technical employees over the next two years.

Commercialization of the ACR is an important element of AECL's growth strategy in support of new reactor sales. This new product is expected to increase our competitive advantage, helping to improve current market share and open opportunities for future growth. Industry studies indicate that there is a significant growing market for electricity primarily in China, the United Kingdom, the United States and Canada, with the Ontario energy gap driving the Canadian market. A Market Study update by respected international energy consultant GF Energy in April 2005 concluded that *"the global market for new power plant orders is sufficiently robust for AECL to continue its (ACR-1000) commercialization efforts"*. AECL sees a projects development focus driven by the Ontario market, which fuels both business development activities and a priority to progress effectively to complete the current Canadian licensing review of the ACR-1000 design. This becomes the lead licensing initiative, which will enable global licensing. The extent of progress depends on the readiness of the market and support of the Government of Canada. AECL will continue to leverage the development of this new product in new technology markets. A noteworthy example is to utilize ACR technology as the nuclear steam generation option for extracting bitumen in new oil sands projects currently under development in Alberta.

Building on the recent new build successes in China and Romania and our track record in other countries, AECL will continue to pursue opportunities for new reactor sales on a global basis with a focus on countries where AECL has a strong existing presence.

The outlook for recurring service work is good, as utilities seek to enhance reliability, extend service life and optimize plant operations. We will strive to build market share by introducing new products, diversifying into new markets based on customer technical requirements and broaden our customer base and geographic coverage.

The opportunities in Canada and internationally provide a solid basis for continued growth and profitability. Our ability to provide to the customer a value chain which encompasses operational and technical development, integrated supply capabilities, cost reductions and quality improvements is key to sustaining growth and profitability. To this end, AECL is developing strong commercial partnerships with customers and suppliers including Hitachi, SNC-Lavalin and Babcock & Wilcox Canada, to provide complete solutions. Furthermore, AECL will continue to look for innovative contractual models, which will be attractive to customers, fair and measurable in the allocation of risk and which will provide higher reward levels for successful outcomes. AECL will be implementing a strategy in the coming year to attract and retain key resources through succession planning, partnership and acquisitions in order to maintain our core capability and meet our sales commitments.

Based on the opportunities discussed above, the Corporate Plan projects consolidated revenue from Commercial Operations to increase 37% from $305 million in 2004–2005, to $419 million in 2005–2006. By the end of the Plan period revenues are projected to increase to $583 million, up 91% from 2004–2005. The associated operating profit from Commercial Operations is expected to increase from $50 million in 2005–2006 to $97 million in 2009–2010.

2005–2006 Corporate Plan

COMMERCIAL OPERATIONS

($ million)	2005–06	2006–07	2007–08	2008–09	2009–10
Revenue	$ 419	$ 573	$ 532	$ 624	$ 583
Operating profit	$ 50	$ 86	$ 84	$ 108	$ 97

The growth of AECL in the nuclear industry is dependent upon continued investment in the Nuclear Laboratories Business Unit under the Technology segment, and leveraging the intellectual property developed. During the Corporate Plan period, AECL will continue to invest in R&D to deliver solutions that support the safety, security and operational performance of the entire fleet of CANDU reactors, consequently assisting the fleet to exceed international standards and supporting the credibility of the industry.

Management of Risks and Uncertainties

AECL manages risk through a formal risk identification and assessment process. This involves three levels of risk review: the Risk Evaluation Panel of the Board of Directors ensures satisfactory governance reviews of proposed commitments that present the highest level exposures; intermediate level exposures are reviewed by business unit heads and senior corporate staff; commitments deemed to have a lower level of risk are reviewed by senior staff in operations and corporate services. In addition, the Audit Committee of the Board plays an important role in overseeing how management identifies, assesses and addresses the risks it faces. The Audit Committee reviews and assesses risk in respect of the financial performance of the Corporation. The Chief Executive Officer (CEO) is accountable to the Board of Directors for all risk taking activities and risk management programs. The executives that support the CEO include the Chief Financial Officer, the Corporate Risk Review Panel, and the Chief Risk Assessment Officer, who is responsible for administering the Corporation's risk management process.

In the upcoming year, as endorsed by the Board of Directors and with executive and management support, the Chief Risk Assessment Officer will implement enhancements to the existing risk management process in order to establish a more integrated and cross-functional approach to managing and monitoring risk throughout AECL. A multifaceted review of risks and opportunities in the context of annual planning to achieve strategic business and operations objectives will facilitate better understanding of options available and their potential consequences. Management will be better positioned to align priorities and resources with AECL's and the Shareholder's appetite and tolerance for risk. This approach will provide greater transparency in decision-making, support governance responsibilities and is expected to strengthen accountability, enhance stewardship and improve corporate performance.

The primary business risk relates to the industry in which AECL operates. This is characterized by very long decision cycles for new major projects. Furthermore, demand levels for AECL's products and services are affected by factors such as technology development, worldwide economic trends, public acceptance, government policy initiatives and levels of commitment to new nuclear electricity generation capacity. To moderate such risks, AECL is establishing new strategic business alliances, growing its full service capability, pursuing the refurbishment business, commercializing newly developed technologies, and carefully managing the portfolio of existing product lines.

In the new-build project business, our continued success is dependent on technological advances. As AECL continues to invest in supporting the CANDU design, a significant commitment is required to complete the development of the ACR, which will be well placed to address the market needs relative to both nuclear vendors and competing technologies. Achieving the ACR commercialization plan requires that the product meet functionality, cost and performance parameters as well as licensing requirements. Timing, continued support of partners including the government and customer participation, licensing preparation and business/financing model and delivery structure will all be critical in achieving the successful launch of the ACR. The pre-licensing process takes several years and requires sufficient completion of design, engineering, analysis and R&D. AECL manages the risk by closely monitoring progress towards achieving ACR's key performance parameters and by carefully managing available resources in accordance with market conditions.

There are considerable risks in managing AECL's major projects. These include potential project delays and cost over-runs, contract performance risk, legal claims and changes in political conditions. We seek to manage these risks by stringent project cost and schedule control, vigorous legal review of contracts, ongoing monitoring and evaluation, including regular review of project forecast to completion and delivery of quality products and services. Maintaining comprehensive insurance coverage for various aspects of a given project and developing effective relationships with clients, project partners, subcontractors and suppliers are important elements in the project management process. Obtaining sovereign and third party guarantees have been part of our risk management strategy to reduce the adverse impact of changes in political conditions. Despite these risks, AECL has delivered all major CANDU projects it has managed in the past decade on time and on budget.

As AECL operates globally with sales and project offices in multiple jurisdictions, it is subject to risks and other factors associated with doing business outside Canada. Foreign operations involve inherent financial risks that include taxes, currency controls and fluctuations, tariffs, import and other related restrictions and regulations. To minimize such risks AECL obtained tax exemptions or tax reimbursement arrangements for certain projects. Sales and purchases are made mainly in Canadian dollars. In addition, where large foreign currency purchase commitments exist, forward contracts reduce exposure. AECL is also subject to credit risks, but these are minimal as its customer base is primarily large corporations and government related entities, which offer sovereign guarantees in their support.

AECL is constructing two isotope production facilities and a processing facility for a customer under contract. These facilities are of a prototype nature and will be unique. This project had been delayed and total costs have exceeded original estimates. AECL, together with the customer and the CNSC are actively engaged in resolving the remaining licensing issues. Pending the transfer of isotope production to the new facilities, AECL continues to deliver all isotopes required by the customer from the National Research Universal (NRU) reactor. AECL has been in negotiations with the customer regarding the overall level of costs borne by the customer and the possible effects of delay on the customer's business. AECL will be engaged in a mediation process with the customer and timing of resolution is uncertain.

AECL is committed to the effective management of all health, safety, security and environmental (HSSE) risks that are inherent in the operation of its major Canadian sites. AECL implemented several formal compliance programs that specifically address the deployment of due diligence processes and associated resources necessary to comply with all applicable laws and regulations. AECL's established environmental policy emphasizes compliance to all applicable environmental legislation and other relevant regulations. This resulted in the appointment of a Chief Environmental Officer and the formation of a Senior Environmental Committee, to oversee environmental activities worldwide. During the year, further measures to support compliance within the current regulatory framework resulted in the appointment of a Chief Regulatory Officer (CRO). The CRO will improve AECL's performance against regulatory requirements, by developing a licensing strategy and providing overall coordination of licensing activities related to nuclear facilities and site operations, including decommissioning and waste management. In addition, the CRO will also provide oversight of AECL's licensing compliance programs. Ultimately, this change will improve AECL's ability to bring products to market in a timely efficient manner.

AECL research laboratories operate major facilities such as reactors, experimental loops, hot cells, waste management plants and support services. These are used both to conduct research and support commercial activities including the isotope business. Facilities are subject to numerous laws and regulations regarding safety and environmental matters including the management of hazardous wastes and materials. There are business risks associated with the availability of facilities for production, potential accidents, the availability of funding for facilities maintenance and upgrades, which consequently pose a risk to AECL's reputation. AECL seeks to manage the safety and environmental risks through its Safety Management System, which includes numerous program controls, such as stringent safety reviews and audits. These controls provide assurance of full compliance to all applicable laws and regulations. Fitness of AECL's facilities is also ensured by a prudent program of equipment and facility maintenance such as investment in the NRU safety upgrades. These upgrades are subject to regulatory reviews and there are risks associated with obtaining operating licences. AECL has in place an extensive insurance program to mitigate losses that may arise from certain types of liability and property risks associated with operations at the laboratories. Appropriations received from the Government of Canada in support of AECL's research laboratories have been significantly reduced since 1997, while increased costs as a result of environmental, regulatory and security concerns have been absorbed by AECL. AECL plans to discuss a long-term funding strategy with the Government of Canada in the coming year.

Achievement of strategic business objectives and the long-term assurance of the safety, licensing and design basis for CANDU technology requires that AECL attract, retain and develop adequate levels of staff with the requisite skills and technical depth. AECL will focus investment in the development of staff in the right technical areas. In support of that goal AECL has put in place a robust succession planning process. It will also ensure that its staff resources are optimally deployed to the key commercial and technology development activities.

AECL is acting to improve employee satisfaction and has launched a change management initiative to ensure all staff are given the appropriate tools required to adapt to the current corporate business environment. Training in customer satisfaction, leadership and internal communications have been deployed company-wide to ensure employees are informed and fully engaged in a customer focused culture. On-going implementation of programs in quality, knowledge management, career and succession planning and continuous process improvement is a management focus to ensure that the Corporation is geared to meet a business environment, which is both challenging and robust.

Maintaining and enhancing customer and regulatory confidence continues to be the main objective of the corporate quality organization. AECL has implemented a strong corporate oversight function to ensure compliance with technical Quality Assurance standards, company-wide requirements and the Nuclear Safety and Control Act and its regulations. Leading the quality organization is the Chief Quality Officer who reports directly to the CEO, thereby ensuring the independence of corporate quality. Continual improvements have led to the achievement and maintenance of ISO 9001: 2000 Global Certifications at all AECL sites (currently at Level 1) in its quest for business excellence. AECL is also following the National Quality Institute's Progressive Excellence Program. Progress in quality improvements is being monitored on a quarterly basis through a Quality Index. Focus on customer satisfaction is invigorating the organization and directing the culture toward adopting best practices to achieve business excellence.

The Corporation's internal auditors review, monitor and assess inherent operational risks and the effectiveness of internal controls. The independent auditors review the effectiveness of internal controls to the extent they consider necessary in the course of their audit of the Corporation's financial statements. Both the internal and independent auditors report directly to the Audit Committee on findings from their audits.

Critical Accounting Policies

AECL's critical accounting policies are those considered to be the most important in determining its financial condition and results, and which require significant subjective judgement by management. A summary of the Corporation's significant accounting policies, including the critical ones discussed opposite, is set out in the notes to the consolidated financial statements.

REVENUE RECOGNITION

AECL generates a significant portion of its revenue from long-term contracts. Revenue from long-term contracts is recognized using the percentage of completion method, where revenue, earnings and work-in-progress are recorded, as related costs are incurred on the basis of percentage costs incurred to date, relative to the estimated total contract costs. The nature of this accounting method is such that refinements of the estimating process for changing conditions and new developments are continuous. Accordingly, revisions in cost and earnings estimates throughout the duration of a contract term are reflected in the period in which the need for revision becomes known. Losses, if any, are fully recognized when first anticipated. Revenue from services sales are recorded when services are rendered and goods are shipped. Revenue from heavy water shipment is recognized when the shipment is accepted in the manner and timing that is in accordance with the related contract.

HEAVY WATER INVENTORY

Heavy water inventory is valued at the lower of cost or net realizable value. It is recorded as a long-term asset since the lead-time required in relation to future reactor sales exceeds one year. At the end of March 2005, the inventory includes 1,003 megagrams provided to the Sudbury Neutrino Observatory Institute, at no cost, for research and experimental purposes, the majority of which is scheduled for return in 2007–2008.

PARLIAMENTARY APPROPRIATIONS

Parliamentary appropriations that are not in the nature of contributed capital are recorded as funding in the year for which they are appropriated, except as follows:

- Appropriations restricted by legislation and related to expenses of future periods are deferred and recognized as funding in the period in which the related expenses are incurred. No appropriations restricted by legislation or related to expenses of future periods were received in 2004–2005.
- Appropriations used for the purchase of property, plant and equipment are deferred and amortized on the same basis as the related asset. The balance of deferred capital funding as at March 2005 amounted to $39 million compared with $42 million in the previous year.

Commencing in 1996–1997, and pursuant to a 10-year arrangement with Treasury Board for funding decommissioning activities, AECL retains the net proceeds from the sale or lease of government-funded heavy water inventory. The net proceeds are transferred from contributed capital to deferred decommissioning funding and are then recorded as funding in the consolidated statement of operations as related expenditures are made. The funding arrangement will expire in 2006–2007 and the Corporation will be discussing with the Government of Canada, in the current year, the future funding arrangements on decommissioning activities.

DECOMMISSIONING AND WASTE MANAGEMENT

AECL's obligation for decommissioning and waste management costs is recorded as a long-term liability. The liability is recorded based on the discounted value (using present value technique) of the estimated future decommissioning and waste management costs to the extent that they can be reasonably estimated. The provision is reviewed annually to reflect actual expenditures incurred and changes in management's estimate of the future costs and timing thereof.

At the request of the Shareholder and in support of a federal radioactive waste strategy, AECL recently developed a revised technical strategy for managing the nuclear legacy liabilities at various AECL sites. The strategy reflects an accelerated approach to decommissioning and is consistent with international practices and regulatory standards. This strategy has been the basis for AECL's revised decommissioning and waste management plan that was submitted to the CNSC.

The present value of the estimated future cash flows associated with the revised plan serves as the basis for the valuation of the reported liability for decommissioning and waste management. The estimated cash flow is higher in cost and shorter in duration than that previously used to value the liability. Concurrent with the strategy review, the Corporation adopted the Canadian Institute of Chartered Accountants (CICA) standard on accounting for asset retirement obligations.

As required by Generally Accepted Accounting Principles (GAAP), the Corporation has treated the financial impact as a change in policy, which resulted in a restatement of the prior year's liability from the original discounted estimate of $431 million to $945 million. The revised estimate of future costs associated with managing the nuclear legacy liabilities increased significantly and resulted in a charge to the Statement of Operations of $1,792 million in fiscal 2005. Consequently, the decommissioning and waste management provision increased to $2,750 million, largely as a result of the revised estimate.

MANAGEMENT'S RESPONSIBILITY

The consolidated financial statements, all other information presented in this Annual Report, and the financial reporting process are the responsibility of management. These statements have been prepared in accordance with Canadian generally accepted accounting principles and include estimates based on the experience and judgement of management.

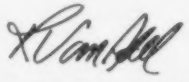
Where alternate accounting methods exist, management has chosen those it deems most appropriate in the circumstances. The Corporation and its subsidiaries maintain books of account, financial and management control, and information systems, together with management practices designed to provide reasonable assurance, that reliable and accurate financial information is available on a timely basis, that assets are safeguarded and controlled, that resources are managed economically and efficiently in the attainment of corporate objectives, and that operations are carried out effectively. These systems and practices are also designed to provide reasonable assurance that transactions are in accordance with Part X of the *Financial Administration Act* (FAA) and its regulations, as well as the *Canada Business Corporations Act*, the articles, and the by-laws and policies of the Corporation and its subsidiaries. The Corporation has met all reporting requirements established by the *Financial Administration Act*, including submission of a corporate plan, an operating budget, a capital budget and this Annual Report.

The Corporation's internal auditor has the responsibility of assessing the management systems and practices of the Corporation and its subsidiaries. AECL's independent auditors conduct an audit of the consolidated financial statements of the Corporation and report on their audit to the Minister of Natural Resources.

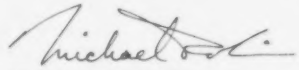
The Board of Directors is responsible for ensuring that management fulfills its responsibility. To accomplish this the Board has established five committees, Audit, Human Resources and Governance, Nominating, Science and Technology, and Risk Evaluation Panel.

The Audit Committee, composed of independent directors, has a mandate for overseeing the independent auditors, directing the internal audit function and assessing the adequacy of AECL's business systems, practices and financial reporting. The Audit Committee meets with management, the internal auditor and independent auditors on a regular basis to discuss significant issues and findings, in accordance with their mandate.

The independent auditors and internal auditor have unrestricted access to the Audit Committee, with or without management's presence. The Audit Committee reviews the consolidated financial statements and the Management's Discussion and Analysis (MD&A) report with both management and the independent auditors before they are approved by the Board of Directors and submitted to the Minister of Natural Resources. The Chairman of the Audit Committee signs the audited financial statements.



ROBERT G. VAN ADEL
President and Chief Executive Officer



MICHAEL ROBINS
Chief Financial Officer

AUDITORS' REPORT

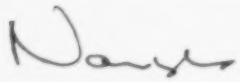
To the Minister of Natural Resources

We have audited the consolidated balance sheet of Atomic Energy of Canada Limited as at March 31, 2005 and the consolidated statements of operations, contributed capital, deficit and cash flow for the year then ended. These financial statements are the responsibility of the Corporation's management. Our responsibility is to express an opinion on these financial statements based on our audit.

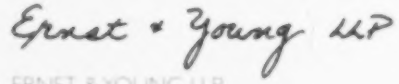
We conducted our audit in accordance with Canadian generally accepted auditing standards. Those standards require that we plan and perform an audit to obtain reasonable assurance whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation.

In our opinion, these consolidated financial statements present fairly, in all material respects, the financial position of the Corporation as at March 31, 2005 and the results of its operations and its cash flows for the year then ended in accordance with Canadian generally accepted accounting principles. As required by the *Financial Administration Act*, we report that, in our opinion, these principles have been applied, after giving retroactive effect to the change in the method of accounting for the decommissioning and waste management provision as explained in Note 3 to the financial statements, on a basis consistent with that of the preceding year.

Further, in our opinion, the transactions of the Corporation and of its wholly-owned subsidiaries that have come to our notice during our audit of the consolidated financial statements have, in all significant respects, been in accordance with Part X of the *Financial Administration Act* and regulations, the *Canada Business Corporations Act*, and the articles and by-laws of the Corporation and its wholly-owned subsidiaries.



NANCY CHENG, FCA
Assistant Auditor General
for the Auditor General of Canada



ERNST & YOUNG LLP
Chartered Accountants

Ottawa, Canada
May 27, 2005

CONSOLIDATED BALANCE SHEET

As at March 31

(thousands of dollars)	2005	2004 *(Note 3)*
ASSETS		
Current		
Cash and cash equivalents (Note 4)	$ 35,275	$ 101,049
Segregated cash (Note 13)	25,851	6,235
Short-term investments (Note 4)	6,302	17,878
Accounts receivable (Note 16)	60,325	54,168
Current portion of long-term receivables (Note 5)	17,229	16,437
Inventory	15,711	12,918
	160,693	208,685
Long-term receivables (Note 5)	253,764	271,005
Trust fund (Note 6)	15,004	12,599
Heavy water inventory (Note 7)	299,503	300,001
Property, plant and equipment (Notes 3 and 8)	122,106	126,928
Other assets	12,105	12,400
	$ 863,175	$ 931,618
LIABILITIES		
Current		
Accounts payable and accrued liabilities	$ 87,864	$ 96,370
Current portion of customer advances and provisions	49,071	71,171
Deferred decommissioning funding (Notes 10 and 13)	25,851	6,235
Current portion of long-term debt (Note 9)	1,000	1,000
	163,786	174,776
Decommissioning and waste management provision (Notes 3, 6 and 10)	2,750,000	945,100
Customer advances and provisions	85,898	78,053
Deferred capital funding	39,264	42,114
Employee future benefits (Note 12)	52,748	50,574
Long-term debt (Note 9)	2,500	3,500
	3,094,196	1,294,117
Commitments and contingencies (Note 15)		
SHAREHOLDER'S EQUITY		
Capital stock		
Authorized – 75,000 common shares		
Issued – 54,000 common shares	15,000	15,000
Contributed capital (Note 13)	530,064	557,729
Deficit	(2,776,085)	(935,228)
	(2,231,021)	(362,499)
	$ 863,175	$ 931,618

The accompanying notes are an integral part of these consolidated financial statements

Approved by the Board:

JEAN-PIERRE SOUBLIÈRE
Director

ROBERT G. VAN ADEL
Director

CONSOLIDATED STATEMENT OF OPERATIONS

For the year ended March 31

(thousands of dollars)	2005	2004 (Note 3)
COMMERCIAL OPERATIONS		
Revenue		
Nuclear products and services	$ 286,567	$ 411,585
Interest on long-term receivables (Note 5)	16,274	15,727
Interest on short-term investments & other (Note 4)	2,061	3,759
	304,902	431,071
Expenses		
Cost of sales and operating expenses	228,750	355,139
Interest on long-term debt (Note 9)	96	163
	228,846	355,302
COMMERCIAL OPERATIONS OPERATING PROFIT	76,056	75,769
TECHNOLOGY		
Revenue		
Services	52,553	55,019
	52,553	55,019
Funding		
Parliamentary appropriations	133,838	148,772
Cost recovery from third parties	14,341	13,740
Amortization of deferred capital funding	3,530	10,417
	151,709	172,929
Cost of sales and operating expenses	314,617	269,442
TECHNOLOGY NET EXPENSE	(110,355)	(41,494)
LIABILITY MANAGEMENT UNIT		
Funding		
Parliamentary appropriations	29,000	30,000
Cost recovery from third parties & other	9,551	10,391
Decommissioning funding	8,049	9,729
	46,600	50,120
Revision in estimate and timing of expenditures (Notes 3 and 10)	1,792,331	60,500
Other expenses	60,827	57,965
LIABILITY MANAGEMENT UNIT NET EXPENSE	(1,806,558)	(68,345)
NET LOSS	$ (1,840,857)	$ (34,070)

Amortization disclosure (Note 8)

The accompanying notes are an integral part of these consolidated financial statements

CONSOLIDATED STATEMENT OF CONTRIBUTED CAPITAL

For the year ended March 31

(thousands of dollars)	2005	2004
Balance at beginning of the year	$ 557,729	$ 575,812
Transfer to deferred decommissioning funding (Note 13)	(27,665)	(18,083)
Balance at end of the year	$ 530,064	$ 557,729

CONSOLIDATED STATEMENT OF DEFICIT

For the year ended March 31

(thousands of dollars)	2005	2004 *(Note 3)*
Balance at beginning of the year, as previously reported	$ (935,228)	$ (438,537)
Change in accounting policy (Note 3)	—	(462,621)
Balance at beginning of the year, as restated	(935,228)	(901,158)
Net loss	(1,840,857)	(34,070)
Balance at end of the year	$ (2,776,085)	$ (935,228)

The accompanying notes are an integral part of these consolidated financial statements

CONSOLIDATED CASH FLOW STATEMENT

For the year ended March 31

(thousands of dollars)	2005	2004 (Note 3)
OPERATING ACTIVITIES		
Cash receipts from customers	$ 332,701	$ 339,226
Cash receipts from parliamentary appropriations	162,838	180,772
Cash paid to suppliers and employees	(488,567)	(489,814)
Funds used for decommissioning activities	(58,665)	(50,083)
Interest on investments received (net)	1,965	3,648
Cash used in operating activities	(49,728)	(16,251)
INVESTING ACTIVITIES		
Purchase of short-term investments	(39,418)	(68,006)
Sales and maturities of short-term investments	50,994	101,960
Proceeds on disposal of property, plant and equipment	948	36
Acquisition of property, plant and equipment	(7,954)	(13,966)
Cash from investing activities	4,570	20,024
FINANCING ACTIVITIES		
Repayment of long-term debt	(1,000)	(1,007)
Cash used in financing activities	(1,000)	(1,007)
CASH, CASH EQUIVALENTS AND SEGREGATED CASH		
Increase/(decrease)	(46,158)	2,766
Balance at beginning of the year	107,284	104,518
Balance at end of the year	$ 61,126	$ 107,284
Interest and bank charges paid during the year	$ 143	$ 235

As at March 31

(thousands of dollars)	2005	2004
CASH, CASH EQUIVALENTS AND SEGREGATED CASH ARE COMPRISED OF:		
Cash	$ 3,075	$ (1,395)
Short-term money market instruments	32,200	102,444
Segregated cash	25,851	6,235
	$ 61,126	$ 107,284

The accompanying notes are an integral part of these consolidated financial statements.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the year ended March 31, 2005

1. The Corporation

Atomic Energy of Canada Limited (AECL) was incorporated in 1952 under the provisions of the *Canada Corporations Act* (and continued in 1977 under the provisions of the *Canada Business Corporations Act*), pursuant to the authority and powers of the Minister of Natural Resources under the *Nuclear Energy Act*.

The Corporation is a Schedule III Part I Crown Corporation under the *Financial Administration Act* (FAA) and an agent of Her Majesty the Queen in right of Canada. The Corporation is exempt from income taxes in Canada.

AECL conducts its business through three business segments: Commercial Operations, Technology, and the Liability Management Unit. These segments represent strategic business units established by senior management to facilitate the achievement of the Corporation's long-term objectives, to aid in resource allocation decisions and to assess operational performance.

Commercial Operations

This segment is largely responsible for two lines of business: Projects and Services. Projects include new-build projects and refurbishment projects together with related project management services, equipment procurement and deliveries and the sale of heavy water. Services include a full line of engineering and technical services that supports operating CANDU plants and improves customer productivity and competitiveness.

Technology

This segment develops new reactor technology and supports the safety, licensing and design for the life cycle of the CANDU product set and other Canadian nuclear technology. Business activities include engineering and development of the Advanced CANDU Reactor, manufacture and sale of medical isotopes, operations of nuclear facilities and carrying out the Government of Canada's policy mandate in support of nuclear technology and the nuclear industry. This business segment is closely linked to Commercial Operations and the Liability Management Unit (LMU), supporting commercial project delivery activity, new product development and execution of the decommissioning and waste management program.

Liability Management Unit

The segment operates as a procurement and planning office with a mandate to manage the decommissioning and waste management program in a cost effective manner and to oversee funding received from the Government of Canada for the program.

2. Significant Accounting Policies

The Corporation's financial statements are prepared in accordance with Canadian generally accepted accounting principles. The significant accounting policies are:

a) Basis of Presentation

These consolidated financial statements include the accounts of the Corporation's wholly-owned subsidiaries, AECL Technologies Inc., incorporated in the state of Delaware, U.S.A. in 1988, and AECL Technologies B.V., incorporated in the Netherlands in 1995. All significant inter-company transactions have been eliminated.

The basis of presentation for the Consolidated Statement of Operations has been changed from previous years to reflect the current operational structure. Prior periods have been changed to conform to the new presentation where appropriate. Revenue, along with associated costs, of $65 million have been reclassified from Commercial Operations with $55 million now in Technology and $10 million in the Liability Management Unit.

b) Use of Estimates

The Corporation's financial statements include estimates and assumptions made by management that affect the amounts reported in the financial statements and accompanying notes. Estimates are based on management's best knowledge of current information. However, actual results may differ significantly from current estimates.

The more significant areas requiring the use of estimates are heavy water inventory, costs of future decommissioning and waste management, future contract costs, commercial and other provisions, employee future benefits and amortization of property, plant and equipment. The Corporation reviews these estimates annually.

c) Cash, Cash Equivalents and Short-Term Investments

Investments with maturities of 90 days or less from the date of purchase are presented as cash equivalents. Short-term investments have original maturities greater than 90 days. Cash equivalents and short-term investments are carried at the lower of cost or market.

d) Trust Fund

Long-term investments in the Trust Fund established pursuant to the *Nuclear Fuel Waste Act* are carried at the lower of cost or market.

e) Foreign Currency Translation
Transactions denominated in a foreign currency are translated into Canadian dollars at the exchange rate in effect at the date of the transaction. Monetary assets and liabilities outstanding at the balance sheet date are adjusted to reflect the exchange rate in effect at that date. Exchange gains and losses arising from the translation of foreign currencies are included in income.

f) Derivative Financial Instruments
The Corporation enters into foreign exchange forward contracts to manage its exposure to changes in exchange rates arising from contractual terms and ongoing business operations. The Corporation's policy is not to utilize derivative financial instruments for trading or speculative purposes.

The Corporation formally documents all relationships between hedging instruments and hedged items, as well as its risk management objective and strategy for undertaking various hedge transactions. This process includes linking all derivatives to specific assets and liabilities on the balance sheet or to specific firm commitments or forecasted transactions. The Corporation also formally assesses, both at the hedge's inception and on an ongoing basis, whether the derivatives that are used in hedging transactions are highly effective in offsetting changes in fair values or cash flows of hedged items.

For forward foreign exchange contracts used to hedge anticipated foreign currency sales, the portion of the forward premium or discount on the contract relating to the period prior to consummation of the sale is recognized as an adjustment of the revenues when the sale is recorded; and the portion of the premium or discount that relates to the resulting account receivable is amortized as an adjustment of interest expense over the remaining term of the contract.

Realized and unrealized gains or losses associated with derivative instruments, which have been terminated or cease to be effective prior to maturity, continue to be deferred under other current, or non-current, assets or liabilities on the balance sheet and recognized in income in the period in which the underlying hedged transaction is recognized. Subsequent changes in the fair value of the derivative are recognized in earnings.

In the event a forecast transaction is no longer probable, any deferred realized or unrealized gain or loss on such a derivative instrument is recognized in income. Subsequent changes in the fair value of the derivative are recognized in earnings.

g) Inventory
Heavy water is valued at the lower of cost or net realizable value. Supplies are valued at cost.

h) Property, Plant and Equipment
Property, plant and equipment are recorded at cost less amortization. Asset retirement costs are included as part of the related asset costs. Amortization is provided on a straight-line basis over the estimated useful life of the asset, and on a usage basis for certain machinery and equipment used in commercial projects, as follows:

Machinery and equipment	3 to 10 years
Land improvements	20 years
Buildings and reactors	40 years

i) Decommissioning and Waste Management Provision
AECL provides for its legal obligation to decommission nuclear facilities and to manage nuclear waste in order to satisfy regulatory requirements. The obligation is recognized in the period incurred when a reasonable estimate of fair value can be determined. As the provision is recorded based on a discounted value of the projected future cash flows, it is increased annually to reflect the passage of time by removing one year's discount. The accretion of discount is charged to expense in the Consolidated Statement of Operations. The provision is reduced by actual expenditures incurred. The cost estimate is subject to periodic review and any resultant changes in the estimated amount or timing of the underlying future cash flows are recorded as an adjustment to the provision. Upon settlement of the liability, a gain or loss will be recorded. The provision includes future construction costs associated with certain enabling facilities, such as disposal facilities for nuclear waste.

As a result of adopting the new Canadian Institute of Chartered Accountants (CICA) standard on accounting for asset retirement obligations (Section 3110), the decommissioning costs will now be added to the carrying amount of the related assets to be decommissioned and amortized over the assets' useful life.

j) Revenue Recognition
Long-Term Contracts and Service Contracts
Revenues are derived from sales of the Corporation's services and products to clients. Revenues under certain long-term contracts, many of which provide for periodic payments, are recognized under the percentage-of-completion method using the ratio of cost incurred to total estimated cost as the measure of performance. When adjustments in contract value or estimated costs are determined, any changes from the prior estimates are generally reflected in earnings in the current period. Anticipated losses on contracts are charged to earnings when identified and determined to be probable. Revenues under cost-reimbursement contracts are recorded as costs are incurred and include an estimate of fees earned. Revenues under all other contracts are recognized when services are performed.

Provisions for estimated losses on incomplete contracts are made in the period in which the probable amounts of such losses are determined. To properly match revenues with costs, certain contracts may have revenue recognized in excess of billings (unbilled revenues), and other contracts may have billings in excess of revenue recognized (customer advance payments). Revenues collected in advance under service contracts are recorded as a liability and recognized over the term of the contract.

Supply of Product
Revenue is recognized based on shipments of product to customers, supported by evidence of invoicing and shipping documents. In the case of Isotope supplies, revenue is recognized based on customer contract.

Interest Revenue
Interest entitlement under a long term receivable is recorded as deferred revenue and released to revenue over the term of the related agreement.

k) Research and Development
Research and development costs are expensed as incurred. Research and development costs incurred to discharge long-term waste management and decommissioning obligations, for which specific provisions have already been made are charged to the related liability.

l) Parliamentary Appropriations
Parliamentary appropriations that are not in the nature of contributed capital are recorded as funding in the year for which they are appropriated, except as follows. Appropriations restricted by legislation and related to expenses of future periods are deferred and recognized as funding in the period in which the related expenses are incurred. Appropriations used for the purchase of property, plant and equipment are recorded as deferred capital funding and amortized on the same basis as the related asset. Commencing in 1996–1997, and pursuant to the 10-year arrangement for funding decommissioning activities, the Corporation retains net proceeds from the sale or lease of certain heavy water. The net proceeds are transferred from contributed capital to deferred decommissioning funding and are then recorded as funding in the consolidated statement of operations as related expenditures are incurred.

m) Cost Recovery from Third Parties
The Corporation and the Canadian nuclear utilities (Ontario Power Generation, New Brunswick Power, Hydro-Québec and Bruce Power L.P.) have a common interest in the safe, efficient and economical use of power utilizing CANDU technology. Research programs aligned with these objectives are undertaken by the Corporation and cost-shared with the utilities. In addition AECL operates the Low-Level Radioactive Waste Management Office (LLRWMO) on a cost-recovery arrangement with Natural Resources Canada. Funding under these arrangements is recorded as cost recovery from third parties and is recognized as the related expenses are incurred.

n) Pension Plan
Employees of the Corporation participate in the Public Service Pension Plan (PSPP) administered by the Government of Canada. Although the PSPP is a defined benefit plan, the Corporation is not required under present legislation to make contributions with respect to actuarial deficiencies of the Plan and therefore, contributions to the Plan are limited to those made by the employees and the Corporation on account of current service. These contributions represent the total pension obligations of the Corporation and are charged to income on a current basis.

o) Other Employee Future Benefits
The Corporation provides certain termination benefits for current employees pursuant to collective agreements and conditions of employment. Other benefits include workers' compensation claims for which the Corporation reimburses Human Resources and Skills Development Canada in accordance with the *Government Employees' Compensation Act* for current payments billed by the provincial compensation boards.

The Corporation accrues the cost of these employee future benefits over the periods in which the employees earn the benefits. The cost of employee future benefits earned by employees is actuarially determined using the projected benefit method prorated on length of service and management's best estimate of salary escalation, retirement ages of employees and expected employee turnover.

3. Change in Accounting Policy

Decommissioning & Waste Management Provision
Effective April 1, 2004 the Corporation adopted the new CICA standard for accounting for asset retirement obligations. The transitional provisions of Section 3110 require the Corporation to measure the legal decommissioning obligations at fair value using current information and assumptions. The effects of these changes have been applied retroactively and prior periods have been restated where appropriate. The changes are presented opposite as increases (decreases) in the affected categories of the Consolidated Balance Sheet and Consolidated Statement of Operations.

BALANCE SHEET

as at March 31

(thousands of dollars)	2004 as reported	restatement	2004 restated
Other assets	$ —	$ 12,400	$ 12,400
Property, plant and equipment	429,961	133,797	563,758
Accumulated amortization	305,442	131,388	436,830
Decommissioning and waste management provision	431,181	513,919	945,100

STATEMENT OF OPERATIONS

for the year ended March 31

(thousands of dollars)	2004 as reported	restatement	2004 restated
Amortization expense	$ 17,439	$ 447	$ 17,886
Accretion expense and cash flow revision	70,613	36,042	106,655
Net (loss) income	2,419	(36,489)	(34,070)

4. Cash, Cash Equivalents, Segregated Cash and Short-term Investments

Bank deposits are maintained at levels required to meet daily operating needs. Any surplus deposits are invested in the short-term money market. The investing strategy is based on a conservative risk assessment. All instruments are rated as R1 Low or higher by the Dominion Bond Rating Service and as A1 Global by Standard and Poors. These investments are comprised of bank certificates of deposit, high-grade commercial and government agency paper, and government treasury bills. The weighted average yield on the short-term investments held as at March 2005 is 2.6% (2004 – 2.7%).

5. Long-term Receivables

(thousands of dollars)	2005	2004
Contract receivables from customers in respect of the financing of products and services, maturing through 2019 at fixed repayment amounts (Note 13)	$ 270,993	$ 287,442
Current portion	(17,229)	(16,437)
	$ 253,764	$ 271,005

Repayment amounts required over succeeding years are as follows:

(thousands of dollars)	
2006	$ 17,229
2007	16,126
2008	16,045
2009	16,985
2010	17,977
Subsequent to 2010	186,633
	$ 270,993

6. Trust Fund

The *Nuclear Fuel Waste Act* required the Canadian nuclear utilities to form a waste management organization, the Nuclear Waste Management Organization (NWMO), to provide recommendations to the Government of Canada on the long-term management of nuclear fuel waste and to implement the approach selected. The legislation also requires that each nuclear fuel waste owner establish a trust fund to finance implementation of the approach. Each individual trust fund is held in order to meet the requirements of the Act and only NWMO may withdraw monies from it in accordance with the provisions of the Act. AECL's initial deposit to its Trust Fund in 2002–2003, as required by the Act, was $10 million. Subsequent annual deposits of $2 million to the Trust Fund are required until the obligation ceases or the amount is modified by the Government of Canada when certain requirements stipulated in the Act are met by NWMO.

The Trust Fund, managed by AECL, invests in fixed income instruments, with various maturities within three years. The fund has been recorded as a long-term asset with a corresponding long-term liability in the balance sheet in the decommissioning and waste management provision. These instruments comprise government bonds, high-grade corporate bonds, government agency paper, government treasury bills and bank certificates of deposit. Quoted market values of the instruments are estimated at $15 million as at March 31, 2005 (2004 – $12.7 million) with a weighted average yield of 3.1% (2004 – 3.8%). Interest earned on trust assets accrues to the Trust Fund.

7. Heavy Water Inventory

Heavy water inventory includes 1,003 megagrams provided to the Sudbury Neutrino Observatory Institute at no cost, the majority of which is scheduled for return in 2007–2008. Heavy water inventory is recorded as a long-term asset since the lead-time required in relation to future reactor sales exceeds one year. A provision has been made for the detritiation and upgrading of certain heavy water inventory.

8. Property, Plant and Equipment

(thousands of dollars)	2005 Cost	2005 Accumulated Amortization	2004 (Note 3) Cost	2004 (Note 3) Accumulated Amortization
Commercial operations				
Land and land improvements	$ 999	$ 250	$ 999	$ 248
Buildings	19,447	12,792	18,798	12,360
Machinery and equipment	25,075	17,743	24,351	15,685
	45,521	30,785	44,148	28,293
Technology				
Construction in progress	11,933	—	16,574	—
Land and land improvements	42,978	21,142	42,539	19,698
Buildings	200,505	155,939	198,101	152,764
Reactors and equipment	265,673	236,638	262,396	236,075
	521,089	413,719	519,610	408,537
	$ 566,610	$ 444,504	$ 563,758	$ 436,830
NET BOOK VALUE		$ 122,106		$ 126,928

Amortization of property, plant and equipment for the year ended March 31, 2005 amounted to $12 million (2004 – $17.6 million). Amortization of deferred capital funding was $5.5 million (2004 – $10.4 million).

9. Long-term Debt

(thousands of dollars)	2005	2004
Loans from Government of Canada		
Maturing September 2008		
bearing interest at a floating rate	$ 3,500	$ 4,500
Current portion	(1,000)	(1,000)
	$ 2,500	$ 3,500

Repayment of loan principal amounts required over succeeding years are as follows:

(thousands of dollars)	
2006	$ 1,000
2007	1,000
2008	1,000
2009	500
	$ 3,500

10. Decommissioning and Waste Management Provision

AECL has an obligation to decommission its nuclear facilities and other assets in order to satisfy Canadian Nuclear Safety Commission (CNSC) and other applicable regulations. These facilities include prototype reactors, heavy water plants, nuclear research and development, waste management and other facilities. Due to the variety of facilities, the decommissioning process may differ in each case. In some situations decommissioning activities are carried out in stages with intervals of several decades between them to allow radioactivity to decay before moving on to the next stage. These activities include surveillance and monitoring, decontamination, demolition and the management of the associated waste. A significant portion of the obligation relates to liabilities that were incurred prior to the creation of AECL in 1952.

In 2005, AECL completed a review of its decommissioning plan, the significant assumptions that underlie the estimate and the calculation of the nuclear facility decommissioning and waste management provision. The amended decommissioning plan adopts international standards with respect to prompt decommissioning practices. This involves addressing the waste early in the decommissioning cycle, and optimizing the safe storage period to avoid deferring unnecessarily activities associated with physical demolition, waste processing and ultimate disposal. The amended plan projects undiscounted expenditures of $6,800 million (in current dollars) over a period of 70 years as compared with the previous estimate of $3,100 million over a period of 100 years. The increase is due to the impact of advancing work activities and additional costs related to nuclear waste management programs as required by the CNSC. Concurrent with the review of the estimate, the Corporation adopted the CICA recommendations on asset retirement obligations as outlined in section 3110. As required in this section, the portion of the revised liability relating to the previous estimate has been treated as a restatement of fiscal 2004 (Note 3) with the remainder charged in the current year.

The estimated future decommissioning and waste management costs require that judgements be made about the regulatory environment, health and safety considerations, the desired end-state, technology to be employed and in some cases, research and development activities that extend well into the future. Significant assumptions determine the valuation,

such as timing of major decommissioning and waste management project expenditures, regulation requirements, volumes of waste, market based premium, interest rate estimates, inflation factors, and the impact of technological advances. Another important assumption is that the liability reflects the affordable funding level necessary to achieve health, safety and environmental protection objectives that are in accordance with CNSC regulations. Changes to these assumptions, as well as changes to the timing of the programs or the technology employed, or changes in the standards and regulations governing the decommissioning of nuclear facilities, could result in material changes to the Decommissioning and Waste Management provision.

The decommissioning plan follows a hierarchy of activities to achieve: a controlled and controllable state for all redundant nuclear facilities that removes short-term risks; a sustainable, stable, safe state of the facilities under surveillance; and cost-optimized completion of actions to achieve a final end state that is an accepted completion of the decommissioning process as required by the regulator. The discount and inflation rates used to calculate the present value of the provision were 5.25% and 1.7% respectively. The table below details transactions incurred in the period 2004–05 (with comparatives):

Decommissioning and Waste Management Provision reconciliation

(thousands of dollars)	2005	2004
		(Note 3)
Opening balance	$ 945,100	$ 878,186
Liabilities settled	(37,049)	(39,741)
Accretion expense	49,618	46,155
Revisions in estimate and timing of expenditures	1,792,331	60,500
Closing balance	$ 2,750,000	$ 945,100

The funding of actual expenditures of $37.0 million (2004 – $39.7 million) is described in Notes 11 and 13.

11. Parliamentary Appropriations

The use of government funding by the Corporation was as follows:

(thousands of dollars)	2005	2004
Research and related infrastructure	$ 103,738	$ 107,738
Year 2000 reduction in appropriation	(4,900)	(4,966)
Advanced CANDU Reactor development	35,000	46,000
	133,838	148,772
Program integrity – decommissioning activities	29,000	30,000
	$ 162,838	$ 178,772

Government funding in 2004–2005 included ongoing support for nuclear research programs, for activities under the government's Program Integrity initiative for health and safety upgrades, including the safe long-term management of nuclear materials or waste, less the fourth of a five-year reduction in appropriation on account of $24.5 million received in prior years to assist in defraying Year 2000 computer costs, and for the development of the Advanced CANDU Reactor (ACR) program.

12. Employee Future Benefits

a) Pension Plan

The Corporation's employee pension benefits are covered through the Public Service Pension Plan (PSPP). Payments are made to three accounts: Public Service Superannuation account (PSSA), Public Service Pension Fund account (PSPF), and the Retirement Compensation Arrangement account (RCA). Total contributions made on account of current service are as follows:

(thousands of dollars)	2005	2004
Payments by employees	$ 13,651	$ 12,690
Payments by employer	$ 31,041	$ 31,656

The Corporation's rate of contribution to the PSPF account is a 2.14 multiple of the employee contributions (2004 – 2.14). The contribution to the RCA account for calendar year 2005 is a multiple of 8.9 of the employee contributions (calendar year 2004 – 7.9). The multiple is subject to change based on revaluation by the PSPP administration.

b) Other Employee Future Benefits

The Corporation provides certain termination and other benefits as described in note 2 (o). The accrued benefit obligation is not funded as funding is provided when benefits are paid. Accordingly, there are no plan assets and the plan deficit is equal to the accrued benefit obligation.

(thousands of dollars)	2005	2004
For the year		
Accrued benefit obligation, beginning of year	$ 69,635	$ 62,412
Current service cost	3,311	3,079
Interest on accrued benefit obligation	4,018	4,136
Benefits paid	(5,295)	(7,575)
Actuarial losses	1,684	7,583
Accrued benefit obligation, end of year	73,353	69,635
Unamortized net actuarial losses	(14,534)	(13,443)
Accrued benefit liability	58,819	56,192
Current portion, accrued benefit liability	(6,071)	(5,618)
Net accrued benefit liability	$ 52,748	$ 50,574

(thousands of dollars)	2005	2004
Net benefit plan cost		
Current service cost	$ 3,311	$ 3,079
Interest cost	4,018	4,136
Amortization of actuarial losses	593	—
Annual benefit plan expense	$ 7,922	$ 7,215

Cumulative actuarial gains or losses in excess of 10% of the obligation are amortized over the remaining average service period of active employees. The average remaining service period of the active employees covered by the other employee future benefits plan is 11 years (2004 – 11 years). The measurement date of the accrued benefit obligation is March 31, 2005, and the latest actuarial valuation of these benefits was performed in March 2005. The next valuation will be performed in March 2006.

The significant actuarial assumptions adopted in measuring the Corporation's accrued benefit obligation are:

- a discount rate of 5.25% (2004 – 5.75%)
- a rate of compensation increase of 5% (2004 – 5%)

13. Contributed Capital and Deferred Decommissioning Funding

Included in contributed capital is approximately $291 million (2004 – $318 million) related to parliamentary appropriations received for the production of heavy water inventory. Up to and including 1995–1996, the Corporation was required to repay the Government of Canada, by way of a dividend, the net proceeds from the sale of government-funded heavy water. A 1997 Decision of the Treasury Board directs the Corporation to hold the proceeds from the sale or lease of government-funded heavy water in a segregated fund for use in decommissioning activities for the 10-year period following the Decision. Commencing in 1996–1997, as government-funded heavy water is sold or leased, the net proceeds are transferred from contributed capital to deferred decommissioning funding which is used to fund ongoing decommissioning activities.

Subsequent to 2005–2006, unless the Decision is renewed, the prior arrangement will apply whereby net proceeds, including interest and principal on long term receivables from heavy water sales, would be repayable to the Government of Canada and decommissioning activities would be funded through parliamentary appropriations. Accordingly, the Corporation expects that the Government of Canada will continue to finance this obligation.

14. Related Party Transactions

In addition to the transactions disclosed in Notes 9, 11 and 12, the Corporation had the following transactions with the Government of Canada:

(thousands of dollars)	2005	2004
Repayment of loans		
Principal	$ 1,000	$ 1,007
Interest	96	180
	$ 1,096	$ 1,187

In the normal course of business, the Corporation also enters into various transactions with the Government of Canada, its agencies and other Crown Corporations. These transactions are recorded at the exchange amount.

15. Commitments and Contingencies

a) Commitments

The Corporation has entered into non-cancellable operating leases expiring on various dates for the rental of office space. The leases contain an escalation clause providing for additional rent.

Minimum future lease payments under these operating leases are as follows:

(thousands of dollars)	
2006	$ 4,257
2007	4,188
2008	4,175
2009	4,085
2010	777
	$ 17,482

b) Performance Guarantees

It is industry practice to use letters of credit, surety bonds and other performance guarantees on major contracts. Such guarantees may include guarantees that a project will be completed or that a project or particular equipment will achieve defined performance criteria. The aggregate amount of the Corporation's potential exposure under the guarantees is estimated to be $102 million on current commercial projects as at March 2005 (2004 – $112 million). Management does not expect these guarantees to have a material impact on the consolidated financial statements of the Corporation.

c) Other
In the normal course of operations, AECL has become involved in various claims and legal proceedings. While the final outcome with respect to claims and legal proceedings pending at March 31, 2005 cannot be predicted with certainty, it is the opinion of management that their resolution will not have a material adverse effect on AECL's financial position or results of operations.

16. Financial Instruments and Financial Risk Management

a) Foreign Currency Exchange
The Corporation enters into foreign exchange forward contracts to reduce the risk associated with the purchase and sale of goods in foreign currencies. There is one forward contract with a notional value of $0.9 million and fair value equivalent to book value as at March 31, 2005 (2004 – nil).

b) Credit Risk
The Corporation is exposed to credit risk in the collection of its accounts receivable. Three customers (2004 – three), each representing greater than 10 per cent of the total accounts receivable, comprise an aggregate 67% (2004 – 50%) of total accounts receivable. No significant amounts are due in foreign currency.

c) Interest Rate Risk
The Corporation is exposed to interest rate risk through its asset retirement obligations. Changes in the discount rate are based on a credit adjusted risk-free rate that is sensitive to interest rate fluctuations.

d) Regulatory Risk
The nature of the business environment the Corporation operates in is highly regulated. Changes in political environment or government policy may have an adverse impact on the Corporation's financial position.

e) Fair Value
Fair value represents management's estimates of the market value at a given point in time. The carrying value of all monetary assets and liabilities approximate fair value as at March 31, 2005 and 2004 with the exception of long-term receivables. The fair value of long-term receivables is $266.7 million (2004 – $280.5 million).

BOARD OF DIRECTORS

J. RAYMOND FRENETTE

Chairman of the Board, AECL,
Mississauga, Ontario

Previously Chairman New Brunswick Power Corporation and former Premier of New Brunswick. Elected to the New Brunswick Legislative Assembly in 1974, he was Minister of Health and Community Services, Government House Leader, Deputy Premier and President of the Executive Council. Previous Directorships include Service New Brunswick and the Canadian Millennium Scholarship Fund. Appointed October 1998. Committees: Audit; Human Resources & Governance; Science & Technology; Risk Evaluation Panel.

ROBERT G. VAN ADEL

President & CEO, AECL, Mississauga, Ontario

Formerly an Executive Vice President at Export Development Canada and AGRA Industries Inc. Directorships include: Canadian Nuclear Association, Nuclear Energy Institute (USA), Canada China Business Council, Energy Council of Canada, Junior Achievement of Central Ontario. Mr. Van Adel was appointed President & CEO of AECL in February 2001. Committees: Risk Evaluation Panel; Science & Technology.

MARCEL AUBUT, Q.C.

Lawyer, senior partner,
Heenan Blaikie, law firm, Quebec

Previously President, Chairman & CEO of the Quebec Nordiques (Quebec City's franchise in the National Hockey League) and Governor of the NHL; Founder of Aubut Chabot (Quebec City law firm); Chairman of the Québec Metro High Tech Park; President and CEO of Trans-America Productions Ltd. Current directorships include: Purolator Courier Ltd; Olymel L.P.; Æterna Zentaris Inc.; Boralex Power Income Fund; Triton Electronik Inc.; Faculty of Law, Laval University; Canadian Olympic Executive Committee; Canada's Sports Hall of Fame, Mont Tremblant Resort; Fondation Nordiques. Member (1986) and Officer (1993) of the Order of Canada, Official Medal of the Quebec National Assembly (1981), Queen's Counsel (1986), and inducted into Canada's Sports Hall of Fame in 1999. Appointed January 2001. Committees: Human Resources & Governance; Nominating.

PETER P. DHILLON

President & CEO, Richberry Group of Companies, Richmond, B.C.

Directorships include: Vice Chairman, Ocean Spray Cranberries, Inc., Chairman of the Audit Committee for the Vancouver Organizing Committee for 2010 Winter Olympics and Vice Chairman of the Agricultural Lands Commission. Formerly Vice Chairman for B.C. Ferries and Director, Canada Customs and Revenue Agency. Appointed November 2002. Committee: Science & Technology.

PIERRE FORTIER

Company Administrator and Consultant,
Montreal, Quebec

Formerly Vice-President, Corporate Affairs of SNC Inc. and President of Canatom Inc. Served for seven years on Canada's Advisory Council on Science & Technology. Served as President of Societe financiere des Caisses Desjardins. During nine years as an elected Member of the Quebec National Assembly he was Minister of Privatization and Associate Minister of Finance responsible for financial institutions. Directorships include Univalor Inc. and Fondation de Polytechnique where he serves as President. Appointed April 1997. Committee: Chair – Risk Evaluation Panel.

CLAUDE LAJEUNESSE

President & Vice Chancellor, Ryerson University, Toronto, Ontario

Formerly President & CEO of the Association of Universities and Colleges of Canada (AUCC). He currently serves as Vice-Chair of the Toronto East General Hospital Board, and as a member of the Board of the Ontario Heritage Foundation and of TD Meloche Monnex. Appointed March 2005. Committees: As a newly appointed Board Member, the committee membership will be determined by the Chairman of the Board.

TERRY VINCENT McCANN, Q.C.

Retired Lawyer, Pembroke, Ontario

Former Mayor of the City of Pembroke. Previous directorships included Saint Francis Xavier University, deHavilland Aircraft Company of Canada, Pembroke Police Commission (Chairman), Pembroke Hydro Commission, and many Pembroke area commercial and charitable organizations. Terry has an Executive MBA from Queen's University and is a recipient of a 125th Confederation Commemorative Medal. Appointed May 2002. Committees: Science & Technology; Audit.

JAMES (JASPER) McKEE

Professor Emeritus, University of Manitoba, Winnipeg, Manitoba

Formerly Professor of Physics at the University of Manitoba and Director of its Accelerator Centre. Fellow of the Institute of Physics (UK) and past President of the Canadian Association of Physicists, past membership of the National Advisory Board on Science and Technology. Directorships include: Smartpark at University of Manitoba, Canadian Club of Winnipeg, Westminster Housing Society, elected member of the European Academy of Sciences. Also the Editor of *Physics in Canada*. Appointed December 1995. Committees: Chair – Science & Technology; Human Resources & Governance.

MARNIE PAIKIN
Director, Hamilton, Ontario

Commissioner of the Ontario Human Rights Commission 1996 to 2005. Recipient of Ontario's "Outstanding Woman Award" and the Human Relations Award of the Canadian Council of Christians and Jews. Former director of Westcoast Energy Inc. and Union Gas Ltd. Inducted into the Hamilton Gallery of Distinction and a Member of the Order of Canada. Appointed July 1985. Committees: Chair – Nominating; Vice Chair – Human Resources & Governance; Vice Chair – Risk Evaluation Panel.

JEAN-PIERRE SOUBLIÈRE
President, Anderson Soublière Inc., Ottawa, Ontario

Formerly President of SHL Systemhouse Canada and International, and President and COO of Alis Technologies. Directorships include: the University of Ottawa; International DataCasting Corporation, United Way of Canada (Chair), AboveSecurity Inc., Provance Technologies Inc. (Chair), the Harmony Foundation (Chair). Appointed October 1998. Committee: Chair – Audit.

DOUGLAS THOMPSON
Lawyer, Hattice Thompson, Shumka & McDonagh, Victoria, B.C.

Member of the Trial Lawyers Association of British Columbia, the Law Society of B.C. and the Canadian Bar Association. Former Directorships include: British Columbia Hydro and Power Authority, the Power Exchange Corporation (Powerex), the University of Victoria, and the Victoria Bar Association. Appointed September 2002. Committees: Vice Chair – Science & Technology; Risk Evaluation Panel.

STELLA THOMPSON
Governance Consultant and Director, Principal and Co-Founder of Governance West Inc., Calgary, Alberta

Current directorships include: Alberta's Electricity Balancing Pool, Canada Foundation for Innovation, Deloitte and Touche Advisory Board and Talisman Energy Inc. Formerly a Vice President at Petro-Canada. Appointed September 2002. Committees: Chair – Human Resources & Governance; Audit; Nominating.

BARBARA TRENHOLM
Professor, University of New Brunswick, Fredericton, N.B.

Member of the Canadian Institute of Chartered Accountants (CICA) and Fellow of the New Brunswick Institute of Chartered Accountants (NBICA). Directorships include: CICA, Plazacorp Retail Properties Ltd., and Tantramar Management Ltd. Formerly co-chair of the University of New Brunswick's Pension Board of Trustees, president of the NBICA, and acting dean of UNB's Faculty of Administration. Appointed June 2002. Committees: Vice Chair – Audit; Risk Evaluation Panel.

NEIL McMILLAN
President, Claude Resources Inc.

Neil resigned from AECL's Board in December 2004 due to other business commitments and priorities. His business insight, experience and sense of humour will be missed.

LOUIS-PAUL NOLET
President & Chief Executive Officer, groupe ip 2000 Inc.

Deceased – June 11, 2004
A valued and respected member of the AECL Board since 1996, Louis-Paul served with dedication and commitment. His contribution as a Director will be remembered and cherished.

OFFICERS

ROBERT G. VAN ADEL
President and Chief Executive Officer

PAUL FEHRENBACH
Vice-President, Nuclear Laboratories

DENNIS GALANGE
Vice-President, Ontario

ALLAN HAWRYLUK
Vice-President, General Counsel & Corporate Secretary

KEN HEDGES
Vice-President, Reactor Development

MICHAEL INGRAM
Vice-President, CANDU Services

BETH MEDHURST
Vice-President, Human Resources

KEN PETRUNIK
Senior Vice-President & Chief Operating Officer

MICHAEL ROBINS
Chief Financial Officer

MICHAEL TAYLOR
Vice-President, Corporate Affairs

PATRICK TIGHE
Vice-President, Marketing & Business Development

DAVID F. TORGERSON
Senior Vice-President & Chief Technology Officer

CORPORATE GOVERNANCE

In 1998 AECL established Corporate Governance Guidelines based on those recommended by the Treasury Board of Canada in its publication entitled "Corporate Governance in Crown Corporations and Other Public Enterprises".

Since that time, the Board of AECL has focused on setting the strategic direction for AECL, ensuring that appropriate mechanisms for financial oversight at AECL are in place, and on establishing systems for performance management, risk management, succession planning and stakeholder communications – all with a view to ensuring that an appropriate accountability framework exists at AECL and that a sound governance regime is in place to guide both management and the Board.

This year, following the announcement by the Federal Government in February, 2004 of its intention to conduct a review of Crown Corporation Governance, AECL's Board, led by the Human Resources and Corporate Governance Committee, undertook to ensure that AECL's governance regime and practices were consistent with the Shareholder's expectations of it, and the public interest in good governance and transparency in the activities of public institutions.

The Corporation's Audit Committee, consistent with the Shareholder's recommendations, and those of the Office of the Auditor General issued in February 2005, undertook a review of best practices and amended its Charter to ensure, among other things, that expected standards of corporate and individual behaviour would be included in its mandate, as would the adequacy of the Corporation's legal and ethical compliance programs, and the regular examinations of officers expenses, including the use of corporate assets. In addition, the Charter of the Audit Committee now specifies a detailed annual schedule of work for reviewing management's assessments of key risks, management's control practices, the Corporation's interim and annual financial statements and notes, and any significant legal matters, contingencies, claims or assessments that could have a material effect on the Corporation.

The Corporation's Code of Ethics and Business Conduct was adopted, aimed at maintaining a work environment that fosters fairness and integrity. Members of both management and the Board annually attest in writing to compliance with the Code.

AECL actively participated in the Shareholder's review of Crown Corporation Governance, with both written representations to the Treasury Board Secretariat and meetings with senior officials of government. AECL provided its views to the Shareholder on the issues of accountability amongst management, the Board and the responsible Minister, the role of the Board of Directors generally, and the accountability of the Board for the Corporation's performance. Additionally, representations were made on issues of transparency and current reporting mechanisms, as well as the role of the Board in Board renewal, and in the selection and compensation of the CEO. Many of AECL's views were reflected in the Review of the Governance Framework for Canada's Crown Corporations issued by the Federal Government in February, 2005.

In accordance with the new procedures announced by the President of the Treasury Board in April, 2004, AECL established a Nominating Committee of its Board, which includes outside eminent persons, to recommend to the Shareholder new director appointments, and address both CEO and Chair succession. In accordance with the Shareholder's requests, a search firm was retained to assist in the process, and recommendations on director succession were forwarded to the Shareholder for consideration. We are pleased to note that the most recent appointments to the AECL Board were a direct result of this process.

The Human Resources and Corporate Governance Committee of AECL regularly re-examines its Corporate Governance Guidelines to determine that they continue to remain relevant today, particularly in light of increasing scrutiny by the public, stakeholders, regulators and shareholders of all organizations on Board and management standards for financial and commercial performance, and ethical behaviour.

The Guidelines, and AECL's activities with respect to each of them, are set out below.

1. The Board of Directors of AECL shall explicitly assume responsibility for the stewardship of the Corporation.

   The Board of Directors approves the strategic direction of AECL through the Corporate Plan approval process, most recently with the Corporate Plan submitted to the Minister of Natural Resources in March, 2005. In addition, the Board has reviewed and approved succession plans for Executive and Senior Management. The Board regularly identifies and reviews major risks at its Risk Evaluation Panel, and sets the strategy with respect to each identified risk. The Board has reviewed the management information system, aimed at addressing the accuracy, quantity, timing, frequency and usefulness of Board information.

2. The Board of Directors of AECL shall examine its public policy objectives and periodically the legislated mandate to ensure their continuing relevance.

In 2002/03, following the appointment of its Chief Executive Officer, AECL embarked upon a process of corporate renewal, and re-examined its public policy objectives. Management and the Board together established a new Mission and Vision for AECL, and achieved consensus with the Shareholder on the corporate mandate. Subsequently, in 2003/04, management and the Board engaged with the Shareholder in a comprehensive review of the commercial potential of AECL, and its current structure, in light of the Mission, Vision and Mandate. The Board, management and the Shareholder remain committed to the public policy objectives and mandate established in 2002/03. The Board examines and reviews the Corporations public policy objectives and mandate annually, as part of the approval process for the Corporate Plan.

3. The Board of Directors of AECL shall ensure that the Corporation communicates effectively with the Crown, other stakeholders and the public.

   The Board and management have a continuing dialogue with the Shareholder on matters of importance, formally and informally. In addition the Corporation has a renewed dedication to customer satisfaction, and has embarked upon a formal process to enhance customer satisfaction, which includes formal surveys and the establishment of a Customer Satisfaction Index, and a Quality Index. The achievement of agreed-upon goals in Customer Satisfaction is a Corporate Objective of the Executive and management of AECL, upon which performance is measured.

4. The Board of Directors and management shall develop an effective working relationship.

   The Board works with the CEO and management in a relationship of openness and trust. Senior management attends Board meetings and Board events. At each meeting, the Board meets in camera with the CEO.

5. The Board of Directors shall ensure that the Board can function independently.

   The Board reviewed and discussed this issue actively this year. The Chair has the ability to and actively does meet with management and members of the executive independent of the CEO. The Board debated the utility of in camera meetings and came to resolution on the matter. The Audit Committee regularly meets in camera and with management and auditors separately. The Board has the ability to obtain independent financial or legal advice as necessary.

   The Board is committed to implementing best practices, and will actively review the further proposed recommendations by the Treasury Board with respect to the role and responsibilities of the Board this year.

6. In recognition of the importance of the position of the CEO, the Board of Directors of AECL shall periodically assess the CEO's position and evaluate the CEO's performance.

   The Board sets annual objectives for the CEO, and assesses and reports to the Shareholder on the CEO's performance.

   The Board sets annual corporate objectives for the year, which are reported on at each Board meeting, and performance against objectives is assessed annually.

7. The Board of Directors of AECL shall assess its effectiveness and initiate renewal of the Board.

   A skills profile for directors has been developed and forwarded to the Shareholder for consideration. An analysis of the skill set of current Board members individually and collectively is reviewed annually for consideration in the skills profile.

   Recommendations for new appointments and renewals of existing directors are regularly made to the Shareholder. The effectiveness of the Board is assessed by detailed survey annually and action plans are developed and implemented based on survey results.

   The Board undertook a comprehensive survey of its Committees this year, and will implement recommendations and actions arising from the survey to continuously improve its effectiveness.

   The Board will consider establishing an assessment process for both directors and the Chairman in the upcoming year.

   The Board has also noted recent announcements made by the Shareholder with respect to governance at Crown Corporations, and will work closely with the Shareholder to ensure that the Shareholder's requirements are effected, and that governance at AECL is continuously improved and enhanced.

8. Directors of AECL shall receive orientation and education programs appropriate to their needs.

   An orientation program, the elements of which have been reviewed by the Board, is undertaken by all new members. This program includes site tours, presentations by senior staff on the activities of AECL, formal briefings by senior executives on matters of strategic importance, and computer and information technology training. Board members have access to a computerized library of all Board minutes and Board materials on record since the establishment of AECL in 1952.

   Board members regularly attend training sessions and conferences, as appropriate. This year members of the

Board and senior executives attended governance training sessions sponsored by the Treasury Board of Canada.

9. The Board of Directors shall review the adequacy and form of compensation for directors.

   The Board has written the Shareholder on the adequacy of the compensation for directors. Compensation for directors is established by AECL's Shareholder through Order in Council, most recently by Order in Council PC 2001-574. The Board is committed to working with the Shareholder to ensure that compensation policies for directors properly reflect the responsibility and competence required to fulfill the role.

10. The Board of Directors shall assume responsibility for developing AECL's approach to governance issues.

    The Board has delegated implementation of governance practices to the Human Resources and Corporate Governance Committee.

    The Committee regularly reviews governance practices and has assumed responsibility for its implementation for the Corporation.

    The Board of Directors met four times in fiscal year 2004–2005 for a total of 8 days, with attendance at 92 percent. The Committees of the Board (five) met an average of five times, with attendance at 99 percent.

DIRECTORS' ATTENDANCE

Attendance at Board and Committee Meetings	
Raymond Frenette	27/27
Robert Van Adel	17/19
Marcel Aubut	19/19
Peter Dhillon	10/12
Pierre Fortier	16/16
Terry McCann	13/13
Jasper McKee	14/14
Marnie Paikin	27/27
Jean-Pierre Soublière	9/11
Douglas Thompson	18/18
Stella Thompson	22/22
Barbara Trenholm	17/18
Claude Lajeunesse[1]	n/a
Neil McMillan[2]	4/4
Louis-Paul Nolet[3]	4/4
Outside eminent persons – Nominating Committee	
Alex Taylor	6/6
Hugh Wynne-Edwards	5/6

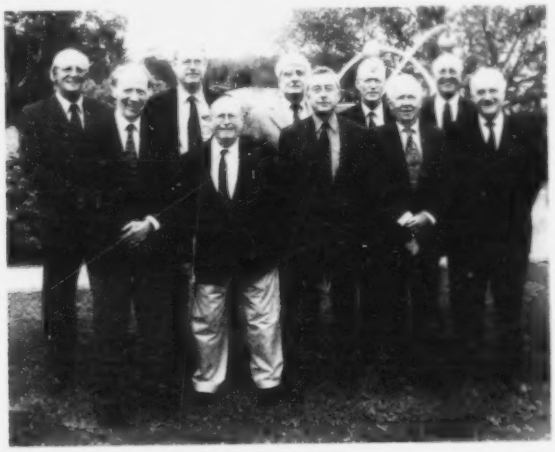
[1] *Claude Lajeunesse was appointed to the Board – March 18, 2005*
[2] *Neil McMillan resigned – June 30, 2004*
[3] *Louis-Paul Nolet deceased – June 11, 2004*

NOMINATING COMMITTEE

Mr. Alex Taylor

Dr. Hugh Wynne-Edwards

EXTERNAL ADVISORS



AECL's Research and Development Advisory Panel

(from left to right)
Dr. Daniel Rozon – École Polytechnique de Montreal
Dr. Terry Rogers – Carleton University
Dr. David Burns – Conestoga College
Dr. Ernest McCulloch – The Ontario Cancer Institute
Dr. Albert Driedger – London Health Sciences Centre*
Dr. Derek Lister – University of New Brunswick
Dr. David Armstrong – University of Calgary
Dr. Robin Armstrong – University of Toronto
Mr. Jon Jennekens – Jonor & Associates*
Dr. John Jonas – McGill University

Missing:
Dr. Trevor Cradduck – The Keston Group
Mr. John Waddington – Nuclear Safety Consultant

**Retired from the Panel during the year.*

FIVE YEAR CONSOLIDATED FINANCIAL SUMMARY

Unaudited

(millions of dollars)	2005	2004*	2003*	2002*	2001*
OPERATIONS					
Revenue	$ 357	$ 486	$ 580	$ 496	$ 615
Parliamentary appropriations for research operations	99	103	107	136	109
Cost recovery from third parties	24	24	25	21	15
Technology expense	315	269	253	214	205
Net income (loss)	(1,841)	(34)	(51)	27	(10)
FINANCIAL POSITION					
Cash, cash equivalents, segregated cash and short term investments	$ 67	$ 125	$ 159	$ 157	$ 52
Heavy water inventory	300	300	427	563	564
Capital expenditures	8	14	22	23	7
Property, plant and equipment	122	127	128	117	103
Total assets	863	932	973	924	821
Decommissioning and waste management provision	2,750	945	915	901	898
Long-term debt (excludes current portion)	3	4	5	6	7
Shareholder's equity	(2,231)	(362)	(310)	(252)	(326)
OTHER					
Export revenues	$ 225	$ 358	$ 361	$ 257	$ 421
Number of full-time employees	3,221	3,214	3,334	3,456	3,306

**These are restated amounts.*

GLOSSARY OF TERMS

Base Load: The minimum continuous load or demand required over a given period of time at a steady rate. Variations in load due to temperature, production, etc., are in addition to base load.

Base Load Capacity: Generating capacity that tends to operate continuously and steadily, due primarily to its low unit operating costs. Base load output is generally not adjusted to follow demand fluctuation.

CANDU: Canada deuterium uranium reactor, moderated and cooled by heavy water.

Capacity: The maximum volume of power that can be produced or delivered under specified conditions by a generator or system, measured on an instantaneous basis. Typically expressed in megawatts.

Core: The central part of a nuclear reactor containing the fuel elements and any moderator.

Decommissioning: The permanent removal of a facility from active service. In the case of a nuclear plant this includes safely closing, and possibly dismantling (or otherwise disposing of) the existing facilities at the end of their service life.

Energy: In an electrical system, a quantity of electric power, typically expressed as kilowatt-hours (kWh), megawatt-hours (MWh), or gigawatt-hours (GWh). Differs from electric *capacity*, which is measured in kilowatts or megawatts.

Fossil fuel: A fuel based on carbon presumed to be originally from living matter, eg coal, oil, gas. Burned with oxygen to yield energy.

Fuel bundle: The package of natural uranium fuel elements for insertion into a CANDU reactor. The uranium is contained in zirconium alloy tubes or elements and the elements are held together by welding them to zirconium alloy plates. Each bundle is a half a metre long and weighs about 20 kg.

Greenhouse Gas Emissions: Discharge into the atmosphere of gases – primarily carbon dioxide, methane and nitrous oxide – believed to contribute to global warming. Main sources include fossil fuel generating plants, transportation vehicles and industrial production.

Heavy water: Water containing an elevated concentration of molecules with deuterium ("heavy hydrogen") atoms.

Isotope: An atomic form of an element having a particular number of neutrons. Different isotopes of an element have the same number of protons but different numbers of neutrons and hence different atomic mass, eg. U-235, U-238. Some isotopes are unstable and decay (qv) to form isotopes of other elements.

MACSTOR: MACSTOR (Modular Air-Cooled STORage) units were developed by AECL as safe, highly-efficient, above-ground modules for storing used fuel from CANDU and other types of reactors.

Megawatt (MW): Unit of electricity equal to one million watts or one thousand kilowatts. Typically used to measure the power production capacity of a generating station or the maximum demand of an electricity consumer.

NRU: The 200-megawatt National Research Universal research reactor at Chalk River Laboratories. It started up in 1957 and currently produces about 60% of the world's supply of molybdenum-99, a critical isotope used for medical diagnostic purposes.

Nuclear reactor: A device in which a nuclear fission chain reaction occurs under controlled conditions so that the heat yield can be harnessed or the neutron beams utilised. All commercial reactors are thermal reactors, using a moderator to slow down the neutrons.

Radiation: The emission and propagation of energy by means of electromagnetic waves or particles. (cf ionising radiation)

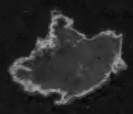
Radioactivity: The spontaneous decay of an unstable atomic nucleus, giving rise to the emission of radiation.

Refurbishment: Large-scale replacement of a CANDU reactor's primary components. Refurbishment of a CANDU reactor can extend its life cycle by 25–30 years.

Regulator: An entity with the legislative authority to develop, impose and enforce regulations in a given industry or industries.

Spent fuel: Fuel assemblies removed from a reactor after several years use.

Sustainable Development: Economic development that meets the needs of the present without compromising the ability of future generations to meet their own needs.



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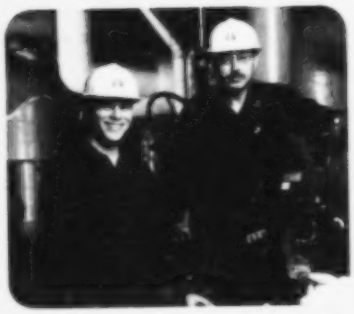

AECL

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